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NEWS	6	NOV 10	CA/CAPLUS F-Term thesaurus enhanced
NEWS	7	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS	8	NOV 20	CAS Registry Number crossover limit increased to 300,000 in additional databases
NEWS	9	NOV 20	CA/CAPLUS to MARPAT accession number crossover limit increased to 50,000
NEWS	10	DEC 01	CAS REGISTRY updated with new ambiguity codes
NEWS	11	DEC 11	CAS REGISTRY chemical nomenclature enhanced
NEWS	12	DEC 14	WPIDS/WPINDEX/WPIX manual codes updated
NEWS	13	DEC 14	GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS	14	DEC 18	CA/CAPLUS pre-1967 chemical substance index entries enhanced with preparation role
NEWS	15	DEC 18	CA/CAPLUS patent kind codes updated
NEWS	16	DEC 18	MARPAT to CA/CAPLUS accession number crossover limit increased to 50,000
NEWS	17	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS	18	DEC 27	CA/CAPLUS enhanced with more pre-1907 records
NEWS	19	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS EXPRESS			NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8
NEWS X25			X.25 communication option no longer available

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:12:39 ON 10 JAN 2007

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=> file caplus uspatfull japio eptfull medline biosis embase scisearch
COST IN U.S. DOLLARS                               SINCE FILE          TOTAL
                                                    ENTRY          SESSION
FULL ESTIMATED COST                                0.21            0.21
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L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:182250 CAPLUS

DOCUMENT NUMBER: 140:205207

TITLE: Biodegradable and bioactive
glass-ceramics, and method for fabricating the
same

INVENTOR(S): Yu, Hyun Seung; Hong, Kug Sun; Kim, Hwan; Lee, Dong
Ho; Lee, Choon Ki; Chang, Bong Soon; Kim, Deug Joong;
Seo, Jun Hyuk; Lee, Jae Hyup; Park, Ki Soo

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004043053	A1	20040304	US 2003-648217	20030827
KR 2004021111	A	20040310	KR 2002-52566	20020902
PRIORITY APPLN. INFO.:			KR 2002-52566	A 20020902

AB Disclosed herein is a biodegradable and bioactive glass-ceramic fabricated by mixing a slowly biodegradable glass-ceramic and a highly biodegradable glass-ceramic in a predetd. mixing ratio wherein the bioactivity is maintained to be constant, and the biodegrdn. rate is controlled by the mixing ratio. The biodegradable and bioactive glass-ceramic is fabricated from a composition consisting of calcium oxide (CaO), silica (SiO₂), boron oxide (B₂O₃), magnesium oxide (MgO), calcium fluoride (CaF₂) and phosphorus pentoxide (P₂O₅). Preparation of a biodegradable and bioactive glass-ceramic according to above method is disclosed. Electron microscopic images shown hydroxycarbonated apatite layers were formed on the entire surfaces of the specimens taken out 1 day after soaking in simulated body fluid thus suggesting that the specimens were highly bioactive. As the content of B₂O₃ in the specimens increased, the weight of the specimens was greatly reduced. This demonstrated that the biodegrdn. of the specimens had actively proceeded.

L8 ANSWER 2 OF 3 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2003:133768 EPFULL

ENTRY DATE PUBLICATION: 20051228

UPDATE DATE PUBLICAT.: 20061206

DATA UPDATE DATE: 20061206

DATA UPDATE WEEK: 200649

TITLE (ENGLISH): BIOCOMPATIBLE MATERIAL

TITLE (FRENCH): MATERIAU BIOCOMPATIBLE

TITLE (GERMAN): BIOKOMPATIBLES MATERIAL

INVENTOR(S): Martinez Fernandez, Julian, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES;
Ramirez de Arellano Lopez, Antonio, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES;
Varela Feria, Francisco Manuel, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES;
Gonzalez Fernandez, Pio Manuel, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES;
Serra Rodriguez, Julia A., Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES;
Liste Carmueja, Sara, Uni. de Vigo, ETS de Ingenieros

Industriales, 36200 Vigo (Pontevedra), ES; Chiusi, Stefano, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Perez Borrajo, Jacinto, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Arias Otero, Jose Luis, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Leon Fong, Betty, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Perez-Martinez Y Perez-Amor, Mariano, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES

PATENT APPLICANT(S): Universidad de Sevilla,, OTRI - Universidad de Sevilla, c/ Valparaíso, 5 1 planta, 41013 Sevilla, ES; Universidad de Vigo, Oficina I+D - Universidad de Vigo, Edificio CACTI, Campus Universitario de Vigo, 36200 Vigo (Pontevedra), ES

PATENT APPL. NUMBER: 2431773; 1896640

AGENT: Temino Ceniceros, Ignacio, Abril Abogados, Amador de los Rios, 1 1, 28010 Madrid, ES

AGENT NUMBER: 159233

DOCUMENT TYPE: Patent

LANGUAGE OF FILING: Spanish

LANGUAGE OF PUBL.: English

LANGUAGE OF PROCEDURE: English

LANGUAGE OF TITLE: German; English; French

PATENT INFO TYPE: EPA1 Application published with search report

PATENT INFORMATION:

	NUMBER	KIND	DATE
	NUMBER	KIND	DATE
	EP 1609441	A1	20051228
	WO 2004056292		20040708
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2003-785961	A	20031216
	WO 2003-ES638	A	20031216
PRIORITY INFO.:	ES 2002-3052	A	20021220

ABEN

The invention relates to a novel biocompatible material which is intended to be used in the production of implants, prostheses or biomedical devices, comprising biomorphic SiC ceramics as a support material with a coating of bioactive glass that is deposited by means of pulsed laser ablation.

L8 ANSWER 3 OF 3 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2000:58304 EPFULL

ENTRY DATE PUBLICATION: 20050824

UPDATE DATE PUBLICAT.: 20060803

DATA UPDATE DATE: 20060802

DATA UPDATE WEEK: 200631

TITLE (ENGLISH): SILVER-CONTAINING, SOL-GEL DERIVED BIOGLASS COMPOSITIONS

TITLE (FRENCH): COMPOSITIONS DE VERRE BIOACTIF CONTENANT DE L'ARGENT ET OBTENU PAR UNE TECHNIQUE SOL-GEL

TITLE (GERMAN): SILBERHALTIGE BIOGLAS-ZUSAMMENSETZUNGEN, DIE VON SOL-GEL ZUSTAENDEN ABGELEITET WERDEN

INVENTOR(S): BELLANTONE, Maria, 17 Cowley Street, London SW1F 3LZ, GB; COLEMAN, Nichola J., 17 Purbeck Road, Chatham, Kent ME4 6ED, GB; HENCH, Larry, L., 38 Clarence Gate Gardens, London NW1 6BA, GB

PATENT APPLICANT(S): Imperial College Innovations, 47 Prince's Gate, London SW7 2QA, GB

PATENT APPL. NUMBER: 3103210
 AGENT: Clyde-Watson, Zoe, D Young & Co 120 Holborn, London
 EC1N 2DY, GB
 AGENT NUMBER: 126711
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPB1 Granted patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	NUMBER	KIND	DATE
	EP 1196150	B1	20050824
DESIGNATED STATES:	WO 2000076486		20001221
	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE		
APPLICATION INFO.:	EP 2000-939832	A	20000614
	WO 2000-US16207	A	20000614
PRIORITY INFO.:	US 1999-139014P	P	19990614
CITED NON PATENT LIT.:	PATENT ABSTRACTS OF JAPAN vol. 017, no. 659 (C-1137), 7 December 1993 (1993-12-07) & JP 05 213621 A (TOKUYAMA SODA CO LTD), 24 August 1993 (1993-08-24);		
	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 08, 29 August 1997 (1997-08-29) & JP 09 110463 A (ION KOGAKU SHINKO ZAIDAN), 28 April 1997 (1997-04-28);		
	JOURNAL OF BIOMEDICAL RESEARCH, vol. 51, no. 3, 5 September 2000 (2000-09-05), pages 484-490,		
CITED PATENT LIT.:	WO 8501210	A	
	WO 9404657	A	
	WO 9907777	A	
	US 5071674	A	
	US 5126141	A	
	US 5298260	A	
	US 5681872	A	
	US 5834008	A	
	US 5874101	A	

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to 50,000
NEWS 10 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 11 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 12 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 13 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and
functionality
NEWS 14 DEC 18 CA/CAPLUS pre-1967 chemical substance index entries enhanced
with preparation role
NEWS 15 DEC 18 CA/CAPLUS patent kind codes updated
NEWS 16 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased
to 50,000
NEWS 17 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 18 DEC 27 CA/CAPLUS enhanced with more pre-1907 records
NEWS 19 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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* * * * * STN Columbus * * * * *

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ENTRY SESSION
FULL ESTIMATED COST 0.42 0.42

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L1 781795 ((BIOACTIVE GLASS) OR CERAMIC OR BIOGLASS OR (BIOACTIVE CERAMIC))
)

=> s L1 and ((calcium oxide) or CaO)
L2 31755 L1 AND ((CALCIUM OXIDE) OR CAO)

=> s L2 and (silica or SiO2)
L3 17778 L2 AND (SILICA OR SIO2)

=> s L3 and ((boron oxide) or B2O3)
L4 3885 L3 AND ((BORON OXIDE) OR B2O3)

=> s L4 and ((magnesium oxide) or MgO)
L5 2589 L4 AND ((MAGNESIUM OXIDE) OR MGO)

=> s L5 and ((calcium fluoride) or CaF2)
L6 111 L5 AND ((CALCIUM FLORIDE) OR CAF2)

=> s L6 and ((phosphorus pentoxide) or P2O5)
L7 58 L6 AND ((PHOSPHORUS PENTOXIDE) OR P2O5)

=> d L7 1-58 ibib abs

L7 ANSWER 1 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:154916 CAPLUS

DOCUMENT NUMBER: 145:319089

TITLE: Synthesis of glass-ceramics in the CaO-MgO-SiO2 system with B2O3, P2O5, Na2O and CaF2 additives

AUTHOR(S): Tulyaganov, D. U.; Agathopoulos, S.; Ventura, J. M.; Karakassides, M. A.; Fabrichnaya, O.; Ferreira, J. M. F.

CORPORATE SOURCE: Department of Ceramics and Glass Engineering, University of Aveiro, Aveiro, 3810-193, Port.

SOURCE: Journal of the European Ceramic Society (2006), 26(8), 1463-1471

CODEN: JEC SER; ISSN: 0955-2219
PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glass-ceramics based on the CaO-MgO-SiO₂ system with limited amount of additives (B₂O₃, P₂O₅, Na₂O and CaF₂) were prepared. All the investigated compns. were melted at 1400°C for 1 h and quenched in air or water to obtain transparent bulk or frit glass, resp. Raman spectroscopy revealed that the main constituents of the glass network are the silicates Q₁ and Q₂ units. SEM anal. confirmed liquid-liquid phase separation and that the glasses are prone to surface crystallization. Glass-ceramics were produced via sintering and crystallization of glass-powder compacts made of milled glass-frit (mean particle size 11-15 µm). Densification started at 620-625°C and was almost complete at 700°C. Crystallization occurred at temps. >700°C. Highly dense and crystalline materials, predominantly composed of diopside and wollastonite together with small amts. of akermanite and residual glassy phase, were obtained after heat treatment at 750°C and 800°C. The glass-ceramics prepared at 800°C exhibited bending strength of 116-141 MPa, Vickers microhardness of 4.53-4.65 GPa and thermal expansion coefficient (100-500°C) of 9.4-10.8 + 10⁻⁶ K⁻¹.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1291244 CAPLUS

DOCUMENT NUMBER: 144:260619

TITLE: Formation of hydroxyapatite onto glasses of the CaO-MgO-SiO₂ system with B₂O₃, Na₂O, CaF₂ and P₂O₅ additives

AUTHOR(S): Agathopoulos, S.; Tulyaganov, D. U.; Ventura, J. M. G.; Kannan, S.; Karakassides, M. A.; Ferreira, J. M. F.

CORPORATE SOURCE: Department of Ceramics and Glass Engineering, CICECO, University of Aveiro, Aveiro, 3810-193, Port.

SOURCE: Biomaterials (2006), 27(9), 1832-1840

CODEN: BIMADU; ISSN: 0142-9612

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New bioactive glasses with compns. based on the CaO-MgO-SiO₂ system and additives of B₂O₃, P₂O₅, Na₂O, and CaF₂ were prepared. The in vitro mineralization behavior was tested by immersion of powders or bulk glasses in simulated body fluid (SBF). Monitoring of ionic concns. in SBF and SEM observations at the surface of the glasses were conducted over immersion time. Raman and IR spectroscopy shed light on the structural evolution occurring at the surface of the glasses that leads to formation of hydroxyapatite.

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:698152 CAPLUS

DOCUMENT NUMBER: 141:218962

TITLE: Bioactive material for use in stimulating vascularization

INVENTOR(S): Day, Richard Michael

PATENT ASSIGNEE(S): The North West London Hospitals Nhs Trust, UK

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004071542	A1	20040826	WO 2004-GB578	20040213
WO 2004071542	A8	20041014		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1592462	A1	20051109	EP 2004-710917	20040213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006233887	A1	20061019	US 2006-545766	20060522
PRIORITY APPLN. INFO.:				
			GB 2003-3371	A 20030214
			GB 2003-23816	A 20031010
			WO 2004-GB578	W 20040213
AB The present invention relates to a bioactive material, particularly one which comprises SiO ₂ and CaO and optionally Na ₂ O and/or P ₂ O ₅ , for use in stimulating vascularization and pharmaceutical compns., wound dressings, tissue constructs and delivery systems which include such a bioactive material.				
L7 ANSWER 4 QF 58 CAPLUS COPYRIGHT 2007 ACS on STN				
ACCESSION NUMBER: 2004:206027 CAPLUS				
DOCUMENT NUMBER: 141:179498				
TITLE: On the microstructure of biocomposites sintered from Ti, HA and bioactive glass				
AUTHOR(S): Ning, C. Q.; Zhou, Y.				
CORPORATE SOURCE: Center for Biomedical Engineering, Wenner Gren Research Laboratory, University of Kentucky, Lexington, KY, 40506, USA				
SOURCE: Biomaterials (2004), 25(17), 3379-3387				
CODEN: BIMADU; ISSN: 0142-9612				
PUBLISHER: Elsevier Science Ltd.				
DOCUMENT TYPE: Journal				
LANGUAGE: English				
AB Sintering reactions and fine structures of the biocomposites prepared from powder mixts. of titanium (α -Ti), hydroxyapatite (HA) and bioactive glass (BG) (SiO ₂ -CaO-P ₂ O ₅ -B ₂ O ₃ -MgO-TiO ₂ -CaF ₂) were investigated by x-ray diffraction and TEM. The results showed that complex reactions among the starting materials mainly depended on the initial Ti/HA ratios as well as the sintering temps. And the reaction could be expressed by the following illustrative equation: $\text{Ti} + \text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2 + \text{CaTiO}_3 + \text{CaO} + \text{Ti}_x\text{Py} + (\text{Ti}_2\text{O}) + (\text{Ca}_4\text{P}_2\text{O}_9) + \text{H}_2\text{O}.$				
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				
L7 ANSWER 5 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN				
ACCESSION NUMBER: 2004:182250 CAPLUS				
DOCUMENT NUMBER: 140:205207				
TITLE: Biodegradable and bioactive glass -ceramics, and method for fabricating the same				
INVENTOR(S): Yu, Hyun Seung; Hong, Kug Sun; Kim, Hwan; Lee, Dong Ho; Lee, Choon Ki; Chang, Bong Soon; Kim, Deug Joong; Seo, Jun Hyuk; Lee, Jae Hyup; Park, Ki Soo				
PATENT ASSIGNEE(S): S. Korea				
SOURCE: U.S. Pat. Appl. Publ., 17 pp. CODEN: USXXCO				

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004043053	A1	20040304	US 2003-648217	20030827
KR 2004021111	A	20040310	KR 2002-52566	20020902
PRIORITY APPLN. INFO.:			KR 2002-52566	A 20020902

AB Disclosed herein is a biodegradable and bioactive glass-ceramic fabricated by mixing a slowly biodegradable glass-ceramic and a highly biodegradable glass-ceramic in a predetd. mixing ratio wherein the bioactivity is maintained to be constant, and the biodegrdn. rate is controlled by the mixing ratio. The biodegradable and bioactive glass-ceramic is fabricated from a composition consisting of calcium oxide (CaO), silica (SiO₂), boron oxide (B₂O₃), magnesium oxide (MgO), calcium fluoride (CaF₂) and phosphorus pentoxide (P₂O₅). Preparation of a biodegradable and bioactive glass-ceramic according to above method is disclosed. Electron microscopic images shown hydroxycarbonated apatite layers were formed on the entire surfaces of the specimens taken out 1 day after soaking in simulated body fluid thus suggesting that the specimens were highly bioactive. As the content of B₂O₃ in the specimens increased, the weight of the specimens was greatly reduced. This demonstrated that the biodegrdn. of the specimens had actively proceeded.

L7 ANSWER 6 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:117764 CAPLUS
 DOCUMENT NUMBER: 138:157658
 TITLE: Alumina-based glass-ceramics with high hardness for use as abrasives
 INVENTOR(S): Rosenflanz, Anatoly Z.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: PCT Int. Appl., 112 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 18
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011784	A2	20030213	WO 2002-US24657	20020802
WO 2003011784	A8	20030320		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2454646	A1	20030213	CA 2002-2454646	20020802
CA 2455902	A1	20031218	CA 2002-2455902	20020802
AU 2002367931	A1	20031222	AU 2002-367931	20020802
EP 1432659	A1	20040630	EP 2002-750413	20020802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
EP 1432660	A1	20040630	EP 2002-807369	20020802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002011558	A	20040713	BR 2002-11558		20020802
CN 1537082	A	20041013	CN 2002-814994		20020802
CN 1537084	A	20041013	CN 2002-815119		20020802
JP 2004536769	T	20041209	JP 2003-516981		20020802
CN 1558876	A	20041229	CN 2002-818937		20020802
CN 1582262	A	20050216	CN 2002-815127		20020802
JP 2005519846	T	20050707	JP 2004-511231		20020802
CN 1649802	A	20050803	CN 2002-819113		20020802
BR 2002011578	A	20060404	BR 2002-11578		20020802
PRIORITY APPLN. INFO.:			US 2001-922526	A	20010802
			US 2001-922527	A	20010802
			US 2001-922528	A	20010802
			US 2001-922530	A	20010802
			WO 2002-US24657	W	20020802
			WO 2002-US24658	W	20020802

AB Glass-ceramics for use as abrasive particles with high hardness contain alumina and other oxides with less than 10 weight% in As₂O₃, B₂O₃, GeO₂, P₂O₅, SiO₂, TeO₂, and V₂O₅ combined and are formed by heat-treatment of the glass compns. into glass-ceramics. The glass-ceramics also contain other components than alumina (such as La₂O₃, ZrO₂, Al, Y₂O₃, Gd₂O₃, Mg, MgO, TiO₂, CaF₂, Nb₂O₅, Ta₂O₅, SrO, Mn₂O₃, Cr₂O₃ and/or CeO₂) and may be crushed to form the abrasive particles. The abrasive particles can be incorporated into a variety of abrasive articles such as bonded abrasives, coated abrasives, nonwoven abrasives and abrasive brushes.

L7 ANSWER 7 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:117762 CAPLUS
DOCUMENT NUMBER: 138:157584
TITLE: Alumina-zirconia-based glass-ceramics with high hardness for use as abrasives
INVENTOR(S): Rosenflanz, Anatoly Z.; Celikkaya, Ahmet; Anderson, Thomas J.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 18
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011782	A2	20030213	WO 2002-US24714	20020802
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2455902	A1	20031218	CA 2002-2455902	20020802
AU 2002367931	A1	20031222	AU 2002-367931	20020802
EP 1430002	A2	20040623	EP 2002-748291	20020802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
EP 1432660	A1	20040630	EP 2002-807369	20020802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1537082	A	20041013	CN 2002-814994	20020802
CN 1537084	A	20041013	CN 2002-815119	20020802

JP 2004536767	T	20041209	JP 2003-516979	20020802
CN 1558876	A	20041229	CN 2002-818937	20020802
CN 1582262	A	20050216	CN 2002-815127	20020802
JP 2005519846	T	20050707	JP 2004-511231	20020802
CN 1649802	A	20050803	CN 2002-819113	20020802
BR 2002011578	A	20060404	BR 2002-11578	20020802
PRIORITY APPLN. INFO.:			US 2001-922526	A 20010802
			US 2001-922527	A 20010802
			US 2001-922528	A 20010802
			US 2001-922530	A 20010802
			WO 2002-US24658	W 20020802
			WO 2002-US24714	W 20020802

AB Glass-ceramics for use as abrasive particles with high hardness contain alumina, stabilized zirconia and other oxides with less than 20 weight% in As₂O₃, B₂O₃, GeO₂, P₂O₅, SiO₂, TeO₂, and V₂O₅ combined and are formed by heat-treatment of the glass compns. into glass-ceramics. The glass-ceramics also contain other oxide components than alumina and zirconia such as La₂O₃, Al, Y₂O₃, Gd₂O₃, Mg, MgO, TiO₂, CaF₂, Nb₂O₅, Ta₂O₅, SrO, Mn₂O₃, Cr₂O₃ and/or CeO₂ and may be crushed to form the abrasive particles. The abrasive particles can be incorporated into a variety of abrasive articles such as bonded abrasives, coated abrasives, nonwoven abrasives and abrasive brushes.

L7 ANSWER 8 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:868867 CAPLUS

DOCUMENT NUMBER: 137:356884

TITLE: Bioactive calcium silicate glass with antimicrobial effects as additive for polymers

INVENTOR(S): Fechner, Joerg Hinrich; Zimmer, Jose; Schnabel, Roland; Schnell, Rupert

PATENT ASSIGNEE(S): Schott Glas, Germany; Carl-Zeiss-Stiftung

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090278	A1	20021114	WO 2002-EP4991	20020507
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10122262	A1	20021121	DE 2001-10122262	20010508
JP 2004526657	T	20040902	JP 2002-587364	20020507
US 2004137075	A1	20040715	US 2003-477098	20031107
PRIORITY APPLN. INFO.:			DE 2001-10122262	A 20010508
			WO 2002-EP4991	W 20020507

AB The bioactive glass is used as additive for polymers, whereby the bioactive glass contains SiO₂ 40-90, CaO 4-45, Na₂O 0-35, P₂O₅ 2-16, CaF₂ 0-25, B₂O₃ 0-10, K₂O 0-8, and/or MgO 0-5 weight%. The invention also relates to a polymer as supporting material comprising 1-30 weight% bioactive glass in relation to its overall weight. The bioactive glass can be added with Ag⁺, Cu⁺, Cu²⁺, and/or Zn⁺. The bioactive glass as an antimicrobial, and fumigant additive for polymers is suitable in households, packaging,

food processing, sealing materials, clothing, medical materials, sanitary materials, automotive industry, building industry, as well as plastic coatings, or adhesives.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:658759 CAPLUS

DOCUMENT NUMBER: 137:206591

TITLE: Dental/medical compositions comprising degradable polymers

INVENTOR(S): Jia, Weitao; Jin, Shuhua

PATENT ASSIGNEE(S): Pentron Corp., USA

SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of U.S. Ser. No. 638,206.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002120033	A1	20020829	US 2001-5298	20011205
US 6787584	B2	20040907		
US 6455608	B1	20020924	US 2000-638206	20000811
WO 2002078646	A1	20021010	WO 2001-US46526	20011205
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2004249015	A1	20041209	US 2004-862177	20040604
PRIORITY APPLN. INFO.:			US 2000-638206	A2 20000811
			US 2000-251408P	P 20001205
			US 1999-148887P	P 19990813
			US 2001-5298	A3 20011205

AB Curable compns. comprising degradable macromonomers having one or more terminal acrylate or methacrylate functionality, a curing composition, a filler composition comprising bioactive particles of bioactive glass, bioactive glass-ceramics, calcium phosphates, calcium apatites, or mixts. thereof and optionally one or more polymerizable acrylate or methacrylate comonomers. Degradable macromonomers are manufactured from cyclic monomers with compds. having acrylate or methacrylate functionality. Depending on their use, the degradable macromonomer compns. further comprise one or more organic or inorg. fillers, including a calcium-based compound and/or a radiopacity-imparting agent. The compns. are particularly suitable for root canal sealants, implants, bone cements, and pulp capping materials. The degradation of cured PLAMA (a polylactide-HEMA)/TEGDMA for varying quantities of PLAMA was studied in a buffer solution of pH 7 over time. The curing of PLAMA/TEGDMA was performed for 2 min by using a curing composition comprising 0.2% by weight camphorquinone and 0.2% DEAEMA. PLAMA and TEGDMA were mixed to give various weight percents (based on the total resin composition)

of PLAMA. The degradation of the samples is related to the weight percent of PLAMA used to prepare the samples, such that degradation of the samples increases with the increasing quantities of PLAMA relative to TEGMA. When no PLAMA is present, no degradation is observed

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:367154 CAPLUS

DOCUMENT NUMBER: 136:358501

TITLE: Dry press-molding and slip-casting preparation of magnesium aluminosilicate glass-ceramic pressure sensor support bases

INVENTOR(S): Xue, Liang A.; Bernot, Anthony J.; Hughes, Grenville;
Lindberg, Laura
PATENT ASSIGNEE(S): AlliedSignal, Inc., USA
SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 6,058,780.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6387318	B1	20020514	US 1999-371676	19990810
WO 2001010788	A1	20010215	WO 2000-US21866	20000810

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1997-986253 A2 19971205
US 1999-371676 A 19990810

AB Dry-pressing and slip-casting processes for the manufacture of aluminosilicate glass-ceramic components used in sensors are described. The starting powder compns. consist of SiO₂ (42-59 weight%), Al₂O₃ (17-35 weight%), MgO (2-25 weight%) and also BaO (0-20 weight%), TiO₂ (0-12 weight%), ZnO (0-10 weight%), CaO (0-10 weight%), B₂O₃ (0-5 weight%), P₂O₅ (0-5 weight%), ZrO₂ (0-5 weight%), alkali oxides such as K₂O or Na₂O (0-3 weight%) and 0-1 weight% of additives such as Fe₂O₃, V₂O₅ and/or As₂O₃. Some of the ingredients can also be present in the form of fluoride such as MgF₂, BaF₂ or CaF₂ up to 10 weight%. Addnl. ceramic additives up to 30 weight%, which are as second phase (e.g., Al₂O₃, Y₂O₃ doped ZrO₂, SiO₂, mullite, zircon, carbides and/or nitrides), are not part of the glass composition, but are introduced to enhance both the mech. strength and toughness and to modify the coefficient of thermal expansion. In the dry pressing process the powder is milled, blended with a binder and then subjected to a drying/granulation process. The powder is inserted in a die and pressed for a period of time until the compact is removed and then sintered to produce ceramic covers or headers. In the slip casting process, the powder is milled and dispersed in a water. The slip is then poured or pumped into a permeable gypsum casting mold. When either the liquid has been completely sucked away by the mold or the desired depositing thickness has been reached, the cast green ceramic part is removed from the mold, dried and then sintered into a ceramic support base.

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:272488 CAPLUS

DOCUMENT NUMBER: 134:370435

TITLE: Crystallization behavior of some selected bioglasses

AUTHOR(S): El-Batal, H. A.; Azooz, M. A.; El-Batal, F. H.

CORPORATE SOURCE: Glass Research Department, National Research Centre, Cairo, Egypt

SOURCE: Applied Mineralogy: In Research, Economy, Technology, Ecology and Culture, Proceedings of the International Congress on Applied Mineralogy, 6th, Goettingen, Germany, July 17-19, 2000 (2000), Volume 1, 123-125. Editor(s): Rammlmair, Dieter. A. A. Balkema: Rotterdam, Neth.

CODEN: 69BDPW

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Crystallization behavior in some bioglasses of the system Na₂O-CaO-SiO₂-P₂O₅ together with the introduction of B₂O₃, MgO, K₂O and CaF₂ were studied. Nucleation and crystallization regimes were carried out by parameter obtained from DTA and dilatometric measurements. The crystalline phases identified using x-ray diffraction studies and the microstructure was examined by scanning electron microscope.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:196240 CAPLUS

DOCUMENT NUMBER: 135:111922

TITLE: Chemical durability of commercial silicate glasses. I. Material characterization

AUTHOR(S): Jedlicka, A. B.; Clare, A. G.

CORPORATE SOURCE: New York State College of Ceramics, Alfred University, Alfred, NY, 14802, USA

SOURCE: Journal of Non-Crystalline Solids (2001), 281(1-3), 6-24

CODEN: JNCSBJ; ISSN: 0022-3093

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Six com. silicate glasses; silica, sodalime silicate, two fiberglass compns. and two Bioglass compns. were subjected to three solns.: distilled water, Dulbecco's phosphate buffered saline solution and

Ham's F-12 1x cell culture media under the exact exptl. conditions that would be encountered during a cell culture study. For companion, a binary sodium silicate glass was also exposed. Weight loss, diffuse reflectance IR spectroscopy (DRIFTS) and potentiometric titration were used to determine the chemical evolution of the substrates during a typical period for cell culturing. The silica, sodalime silicate and high-silica fiberglass material showed only small changes in all cases except for differences in OH active site concentration. The Bioglass compns. and the low-silica fiberglass exhibited solution-dependent dynamic surface chemical. The sodium silicate was too dynamic for even the most aggressive buffering system. The purpose of this study was to elucidate cell behavior to be reported in a later paper.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:50441 CAPLUS

DOCUMENT NUMBER: 134:90878

TITLE: Usage of bioactive glass as preservative for cosmetic and pharmaceutical preparations

INVENTOR(S): Kessler, Susanne; Lee, Sean

PATENT ASSIGNEE(S): Schott Glas, Germany

SOURCE: PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001003650	A2	20010118	WO 2000-DE2231	20000707
WO 2001003650	A3	20010927		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2374395	A1	20010118	CA 2000-2374395	20000707
BR 2000012330	A	20020319	BR 2000-12330	20000707
EP 1194113	A2	20020410	EP 2000-956075	20000707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200103723	T2	20020621	TR 2001-3723	20000707
HU 200201821	A2	20021128	HU 2002-1821	20000707
JP 2003504317	T	20030204	JP 2001-508934	20000707
NZ 516136	A	20040227	NZ 2000-516136	20000707
AU 780131	B2	20050303	AU 2000-68184	20000707
NO 2002000082	A	20020108	NO 2002-82	20020108
ZA 2002000155	A	20040211	ZA 2002-155	20020108

PRIORITY APPLN. INFO.: DE 1999-19932239 A 19990709
 WO 2000-DE2231 W 20000707

AB The invention relates to a preservative which contains a bio-active glass and a protic solvent. The inventive preservative is used preferably for preserving cosmetic and pharmaceutical preps., in particular for creams, lotions, lipsticks, make-up compns. and/or tinctures. The bioactive glass contains in weight/weight%: SiO₂ 40-60; CaO 10-30; Na₂O 10-35; P₂O₅ 2-8; CaF₂ 0-10; B₂O₅ 0-8; K₂O or MgO 0-5.

L7 ANSWER 14 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:718225 CAPLUS
 DOCUMENT NUMBER: 133:300023
 TITLE: Manufacture of strong miserite glass ceramics for bone implant materials
 INVENTOR(S): Andrus, Ronald L.; Beall, George H.; Pinckney, Linda R.; Wolcott, Christine C.
 PATENT ASSIGNEE(S): Corning Incorporated, USA
 SOURCE: U.S., 7 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6130178	A	20001010	US 1999-286158	19990405
PRIORITY APPLN. INFO.:			US 1998-82127P	P 19980416

AB The glass ceramics having high strength and toughness and containing miserite as a predominant crystal phase are described. The glass ceramics comprise SiO₂ 40-68, CaO 12-35, CaF₂ 8-20, K₂O 4-10.5, Al₂O₃ 0-5, B₂O₃ 0-5, P₂O₅ 0-15, R₂O₃ 0-4 weight%, wherein R represents Y³⁺ and rare earth metals in the lanthanide series, and 0-5 weight% of optional constituents selected from MgO, SrO, BaO, Na₂O, Nb₂O₅, ZrO₂, and ZnO, and 0-10 weight% of optional constituents selected from Nb₂O₅ and TiO₂, and 0-2 weight% Li₂O as an optional constituent. The glass ceramics may contain secondary phases of cristobalite (SiO₂), fluorite (CaF₂), xonotlite (Ca₆Si₆O₁₇F₂), and fluorapatite (Ca₅(PO₄)₃F), and small amts. of other calcium silicate phases such as wollastonite (CaSiO₃).

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:285703 CAPLUS

DOCUMENT NUMBER: 132:283065
 TITLE: Bioactive glass composition and methods of treating sick tooth
 INVENTOR(S): Litkowski, Leonard J.; Hack, Gary D.; Greenspan, David C.
 PATENT ASSIGNEE(S): Univ. of Maryland at Baltimore, USA; Usbiomaterials Corp.
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 25 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1213355	A	19990407	CN 1997-193085	19970129
CN 1103750	B	20030326		
HU 9901760	A2	19991028	HU 1999-1760	19970129
PT 877716	T	20050228	PT 1997-906489	19970129
ES 2230597	T3	20050501	ES 1997-906489	19970129
US 5735942	A	19980407	US 1997-895329	19970716
US 6338751	B1	20020115	US 1998-52647	19980331
PRIORITY APPLN. INFO.:			US 1996-10795P	P 19960129
			US 1996-597936	A 19960207
			US 1997-789909	A 19970129
			US 1997-895329	A1 19970716

AB The glass composition having bioactivity and biocompatibility is composed of: SiO₂ 40-60, CaO 10-30, Na₂O 10-35, P₂O₅ 2-8, CaF₂ 0-25, B₂O₃ 0-10, K₂O 0-8, and MgO 0-5 weight%, where the glass composition has glass particles <90 μm and mineral additive particles <10 μm. The composition is mixed with other substance, and used for prevention and treatment of early dental caries, and for repair of affected tooth. The other substance is tooth paste, lining, substrate, gel, repair material, glycerol gel, preventive, and/or indirect pulp-cap, etc. The methods of treating sick or affected tooth using the title composition are also claimed.

L7 ANSWER 16 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:205201 CAPLUS
 DOCUMENT NUMBER: 132:211608
 TITLE: Preparation of luminous enamel glazes and articles
 INVENTOR(S): Zhang, Yujun
 PATENT ASSIGNEE(S): Lunbo Commercial and Industrial Group Co., Ltd., Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1198413	A	19981111	CN 1998-110267	19980605
CN 1058947	B	20001129		
PRIORITY APPLN. INFO.:			CN 1998-110267	19980605

AB The enamel glaze is composed of luminous powder 20-45, base glaze 45-100, and additive 0.2-3 part. The luminous powder is MO.nAl₂O₃:Eu²⁺ (M = Sr, Mg, Ba, and/or Ca; n = 1-3). The additive is CMC, clay, and/or xanthan gum. The base glaze is composed of SiO₂ 10-70, Al₂O₃ 2-15, CaO 0-5, CaF₂ 0-8, K₂O 1-10, Na₂O 6-15, ZnO 0-3, PbO 0-50, P₂O₅ 0-5, SrO 5-35, MgO 0-6, BaO 0-20, B₂O₃ 6-32, and Li₂O 0-6 part. The process comprises mixing the raw material for base glaze, sintering at 1,000-1,350°, annealing

with water, mixing with the other raw material, and grinding. The enamel product is prepared by coating the glaze on white overglaze, and baking at 780-820° for 1-3 min.

L7 ANSWER 17 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:326314 CAPLUS

DOCUMENT NUMBER: 129:44046

TITLE: Surface nucleated crystallization of wollastonite and wollastonite-apatite glasses

AUTHOR(S): Ciecinska, M.; Stoch, L.; Duda, A.

CORPORATE SOURCE: Univ. Mining Metallurgy, Krakow, 30-059, Pol.

SOURCE: Prace Komisji Nauk Ceramicznych, Ceramika (Polska Akademia Nauk) (1996), 49(Properties of Glasses with Modifying Compounds), 109-123

CODEN: PKNCE6; ISSN: 0860-3340

PUBLISHER: Polskie Towarzystwo Ceramiczne

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The sintering/simultaneous crystallization of glasses of composition which enables

formation of wollastonite or wollastonite-apatite phases were studied.

Comps. studied include P2O5 14-CaO 47-SiO2

34-MgO 5-CaF2 0.5, P2O5 14-CaO 47-

SiO2 34-MgO 5-B2O3 0.5, CaO 46-

SiO2 49-Na2O 5, and CaO 43.5-SiO2 46.5-Na2O 10

wt%. After melting, quenching, granulating, compacting, and

sintering/crystallizing, the glass-ceramic samples were examined by DSC

and x-ray diffraction.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 18 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:525846 CAPLUS

DOCUMENT NUMBER: 127:195535

TITLE: Bioactive glass compositions, and treatment method using the bioactive glass

INVENTOR(S): Litkowski, Leonard J.; Hack, Gary D.; Greenspan, David C.

PATENT ASSIGNEE(S): University of Maryland, USA; Usbiomaterials Corp.; Litkowski, Leonard J.; Hack, Gary D.; Greenspan, David C.

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9727148	A1	19970731	WO 1997-US1785	19970129
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
BR 9707219	A	19991228	BR 1997-7219	19970126
CA 2244722	A1	19970731	CA 1997-2244722	19970129
CA 2244722	C	20060829		
AU 9721171	A	19970820	AU 1997-21171	19970129
AU 723659	B2	20000831		
EP 877716	A1	19981118	EP 1997-906489	19970129

EP 877716 B1 20041013
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL,
PT, SE

HU 9901760	A2	19991028	HU 1999-1760	19970129
NZ 331514	A	20000327	NZ 1997-331514	19970129
JP 2001525779	T	20011211	JP 1997-527131	19970129
AT 279380	T	20041015	AT 1997-906489	19970129
PT 877716	T	20050228	PT 1997-906489	19970129
ES 2230597	T3	20050501	ES 1997-906489	19970129
US 5735942	A	19980407	US 1997-895329	19970716
US 6338751	B1	20020115	US 1998-52647	19980331
NO 9803490	A	19980923	NO 1998-3490	19980729
HK 1019222	A1	20030711	HK 1999-104392	19991007

PRIORITY APPLN. INFO.:

US 1996-10795P	P	19960129
US 1996-597936	A	19960207
US 1997-789909	A	19970129
WO 1997-US1785	W	19970129
US 1997-895329	A1	19970716

AB A novel silica-based bioactive glass composition is described that can be used in conjunction with a delivery agent such as a toothpaste, gel, etc., having a particle size range $<90\text{ }\mu\text{m}$ which will form a rapid and continuous reaction with body fluids due to the immediate and long-term ionic release of Ca and P from the core silica particles, to produce a stable crystalline hydroxycarbonate apatite layer deposited onto and into the dentin tubules for the immediate and long-term reduction of dentin hypersensitivity and tooth surface remineralization. Thus a bioglass composition contained SiO₂ 45, CaO 24.5, Na₂O 24.5, and P₂O₅ 6% by weight. The composition was placed on dentin slabs. The exposure times to the dentin varied between 2 min with scrubbing to 3 days. The formation of hydroxyapatite on the dentin surface was confirmed by IR spectroscopy.

L7 ANSWER 19 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:523416 CAPLUS
DOCUMENT NUMBER: 119:123416
TITLE: Glass for biocompatible glass ceramics
INVENTOR(S): Tulyaganov, Dilshat U.; Abdullaev, Sharif Yu.;
Makhkamov, Mokhir E.; Aripova, Mastura Kh.
PATENT ASSIGNEE(S): Tashkentskij g med institut, USSR
SOURCE: U.S.S.R. From: Izobreteniya 1992, (23), 92.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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SU 1742239	A1	19920623	SU 1990-4839542	19900618
PRIORITY APPLN. INFO.:			SU 1990-4839542	19900618

AB Crystallization rate is increased and articles of natural color tone are obtained

when the glass contains MgO 0.89-15.2 and Fe₂O₃ 0.15-0.25 and/or Mn₂O₃ 0.05-15.02 in addition to SiO₂ 27.74-46.91, Al₂O₃ 1.81-21.28, CaO 28.80-29.94, P₂O₅ 5.21-14.312, B₂O₃ 0.99-2.90, and CaF₂ 0.96-2.62 weight%.

L7 ANSWER 20 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:518454 CAPLUS
DOCUMENT NUMBER: 117:118454
TITLE: Influence of substituting boron trioxide for calcium fluoride on the bonding behavior to bone of glass-ceramics containing apatite and wollastonite
AUTHOR(S): Kitsugi, Toshiaki; Yamamuro, Takao; Nakamura, Takashi; Yoshii, Satoru; Kokubo, Tadashi

CORPORATE SOURCE: Fac. Med., Univ. Kyoto, Kyoto, Japan
SOURCE: Biomaterials (1992), 13(6), 393-9
CODEN: BIMADU; ISSN: 0142-9612
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glass-ceramics containing crystalline oxyfluoroapatite $[\text{Ca}_{10}(\text{PO}_4)(\text{O},\text{F}_2)]$ and wollastonite (CaSiO_3) (designated AWGC) are reported to have a fairly high mech. strength as well as the capability of forming a chemical bond with bone tissue. The chemical composition is MgO 4.6, CaO 44.9, SiO_2 34.2, P_2O_5 16.3, and CaF_2 0.5 in weight ratio. In this study the influence of substituting B_2O_3 for CaF_2 on the bonding behavior of glass-ceramics containing apatite and wollastonite to bone tissue was investigated. Two kinds of glass-ceramics containing apatite and wollastonite were prepared CaF_2 0.5 was replaced with B_2O_3 at 0.5 and 2.0 in weight ratio (designated AWGC-0.5B and AWGC-2.0B). Rectangular ceramic plates (15 + 10 + 2 mm, abraded with Number 2000 alumina powder) were implanted into a rabbit tibia. The failure load, when an implant detached from the bone, or the bone itself broke, was measured. The failure load of AWGC-0.5B was 8.00 ± 1.82 kg at 10 wk after implantation and 8.16 ± 1.36 kg at 25 wk after implantation. The failure load of QSGC-2B was 8.08 ± 1.70 kg at 10 wk after implantation and 9.92 ± 2.46 kg at 25 wk after implantation. None of the loads for the two kinds of glass-ceramics decreased as time passed. Giemsa surface staining and contact microradiog. revealed direct bonding between glass-ceramics and bone. SEM-EPMA showed a Ca-P rich layer (reaction zone) at the interface of ceramics and bone tissue. There was no difference of the reaction zone thickness between AWGC-0.5B and AWGC-2.0B. The substitution B_2O_3 for CaF_2 did not influence the bonding ability of the glass-ceramics. Boron neither promotes the dissoln. of the glass-ceramics nor influences the bond formation at the interface of ceramics and bone.

L7 ANSWER 21 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:191677 CAPLUS
DOCUMENT NUMBER: 104:191677
TITLE: Glass-ceramics
INVENTOR(S): Shibuya, Takehiro; Hashibe, Yoshio
PATENT ASSIGNEE(S): Nippon Electric Glass Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61017442	A	19860125	JP 1984-139563	19840704
JP 04006659	B	19920206		

PRIORITY APPLN. INFO.: JP 1984-139563 19840704

AB The crystallized glass contains ≥ 90 weight % substances which are composed of SiO_2 41-56, CaO 26-50, P_2O_5 1-8, and MgO 1-18.5 weight % and has a structure consisting of minute crystals dispersed in a glass matrix. The matrix preferably contains ≤ 10 weight % of compds. selected from BaO , SrO , ZnO , B_2O_3 , Al_2O_3 , TiO_2 , ZrO_2 , Nb_2O_3 , Ta_2O_5 , and CaF_2 . The glass powder (≤ 200 mesh) may also be compacted, heated at the sintering temperature, and heat-treated at the crystallization temperature. The glass-ceramic does not contract during crystallization, does not chip or crack during machining, and

it

has excellent mech. strength, elec. insulation, and dielec. characteristics. Thus, a raw material mixture composed of SiO_2 41.8, P_2O_5 7.6, CaO 48.8, and MgO 1.8 weight % was melted at $1400-1500^\circ$ in a Pt crucible for 4 h, allowed to flow between water-cooled rollers to give ribbon glass, and crushed to give

powder (≤ 200 mesh). The powder was compacted, and sintered at 1050° and crystallized. The glass-ceramic showed bending strength 1850 kg/cm^2 .

L7 ANSWER 22 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:459356 CAPLUS
DOCUMENT NUMBER: 103:59356
TITLE: Glass ceramic dental crowns
INVENTOR(S): Hirabayashi, Masaya; Noda, Iwao
PATENT ASSIGNEE(S): Kyocera Corp., Japan
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3435348	A1	19850502	DE 1984-3435348	19840926
DE 3435348	C2	19860320		
JP 60069007	A	19850419	JP 1983-178962	19830926

PRIORITY APPLN. INFO.: JP 1983-178962 A 19830926

AB Dental crowns are composed of a glass ceramic composed of microcrystals of Ca phosphate minerals, especially apatite, composed of SiO_2 , P_2O_5 , CaO , MgO , and CaF_2 with a linear expansion coefficient of $9 + 10^{-6}$ to $11 + 10^{-6}/\text{degree}$ and a crystallization temperature of $800-900^\circ$. The crown may be monolithic or a composite of the glass ceramic and a metal or ceramic reinforcement with approx. the same expansion coefficient. The crowns may be used to form a bridge. A mixture of SiO_2 27, P_2O_5 13, CaO 54, MgO 3, B_2O_3 2, and CaF_2 1% was melted in a Pt crucible at 1450° and then cooled rapidly to form a glass ceramic, which was melted at 1300° and cast in a Mg phosphate-coated centrifugal mold. The mold and casting were heated at 800° for 2 h to crystallize a large portion of $\text{Ca}_{10}(\text{PO}_4)_6\text{O}$, and the mold was removed. The product had a linear expansion coefficient of $10 + 10^{-6}/\text{degree}$ (800°), a bending strength of 1400 kg/cm^2 , and a compressive strength of 9000 kg/cm^2 . It was semitransparent, and an ivory segment could be fused to the inner surface. The crown was mounted on a prepared natural tooth with a glass ionomer cement.

L7 ANSWER 23 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1983:166924 CAPLUS
DOCUMENT NUMBER: 98:166924
TITLE: Crystallized glass for artificial bone
PATENT ASSIGNEE(S): Kyoto University, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57191252	A	19821125	JP 1981-76696	19810522
JP 62010939	B	19870309		

PRIORITY APPLN. INFO.: JP 1981-76696 19810522

AB Crystallized glasses for artificial bone and dental prosthetics contain MgO 1-7, CaO 42-53, SiO_2 22-41 and P_2O_5 10-27% with $<10\%$ of impurities including Li_2O , Na_2O , K_2O , SrO , B_2O_3 , Al_2O_3 , TiO_2 , ZnO , Nb_2O_5 , Ta_2O_5 and CaF_2 . Thus, a crystallized glass consists of MgO 4.5, CaO 42.0, SiO_2 33.5,

P2O5 16.5 and CaF2 2.0% with a flexural strength of 1400 kg/cm2.

L7 ANSWER 24 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:516142 CAPLUS
DOCUMENT NUMBER: 71:116142
TITLE: Materials for coating articles
INVENTOR(S): McMillan, Peter W.; Partridge, Graham; Ward, Frank Russell
PATENT ASSIGNEE(S): English Electric Co. Ltd.
SOURCE: Ger. Offen., 37 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1812733		19690904	DE 1968-1812733	19681204
FR 1593971			FR	
GB 1205652			GB	
PRIORITY APPLN. INFO.:			GB	19671204

AB Glass compns. for coating, sealing, or joining articles, having a linear thermal expansion coefficient $\leq 50 + 10^{-7}/\text{degree}$ consist of a molten mixture of a noncrystd. solder glass and 26-80% glass-ceramic having a linear thermal expansion coefficient $\leq 30 + 10^{-7}/\text{degree}$. The glass-ceramic has a lower coefficient of expansion. The 2 components are present in such proportions that the composition has an coefficient of expansion equal or similar to that of the article. The solder glass contains PbO 30-80, B2O3 5-30, SiO2 0-5, ZnO 0-40, and BaO 0-30, or SiO2 35-66, ZnO 0-6, B2O3 0-19, BaO 0-21, Al2O3 0-15, CaO 0-4, Li2O 0-24, Na2O 0-13, K2O 0-29, MgO 0-4, BaF2 0-16, and CaF2 0-8. The glass-ceramic consists of SiO2 45-82, Al2O3 10-36, Li2O 0-25, and MgO 0-32, or SiO2 0-43, Al2O3 0-29, ZnO 21-70, and B2O3 14-58%, and as nucleation agents P2O5, V2O5, TiO2, or MoO3. The glass compns. can be used as coatings on different materials having a similar thermal expansion coefficient e.g. glass, ceramics, glass-ceramics, etc., to form decorative glazes or protective layers.

L7 ANSWER 25 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:98299 CAPLUS
DOCUMENT NUMBER: 68:98299
TITLE: Use of titanium- and vanadium-containing slags in the production of silicate enamels
AUTHOR(S): Oshurkov, E. M.; Smirnov, N. S.; Antonova, S. N.
SOURCE: Trudy Ural'skogo Nauchno-Issledovatel'skogo Instituta Chernykh Metallov (1966), 5, 259-67
CODEN: TUCMAN; ISSN: 0372-2465
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The possibility of using Ti-magnetite slags from the blast-furnace treatment of ores (slag A) and of slags from the treatment with calcined soda outside the blast-furnace of V-containing cast iron (slag B) for the preparation of enamels was studied. Slag A contains approx. melilite 40, baikovite (MgO, TiO2, SiO2) 15, perovskite 10, rutile 3, FeO 2-3, and a glassy phase 20-35%. Slag B, that does not have a constant composition, contains, aside from Na metasilicates, thermonatrite (Na2CO3.H2O), Na2S, Na2SO4, and approx. 40% of a glassy phase, characteristic amts. of V2O5 1-1.5, Na2O 30-5, and Fe oxides 1.5-6.5. A D.T.A. was used to determine the softening points of the slags, alone or mixed with CaF2 or Na2SiF6, and to investigate the reactions with other components of the enamels. By D.T.A. and a petrographical anal.,

ground enamels, containing the slags, were prepared. The glass phases, present in both slags, accelerate the glass formation during melting of the enamels. The Fe oxides promote the fixation to a steel base. V2O5 lowers the surface tension of the melt, aids rheological properties, and causes wetting of oxidized steel surfaces. For example, a ground enamel was prepared from a mixture of slag B 42.55, quartz sand 25.25, CaF2 4.2, kaolin 5.4, boric acid 17.85, NaNO3 3.8, CoO 0.45, and NiO 0.5%. The enamel obtained had the following composition: SiO2 45, TiO2 4.2, B2O3 11.9, Al2O3 4, Na2O 18.7, CaO 0.9, MgO 0.6, CaF2 4, P2O5 0.11, FeO 5.62, Fe2O3 1.88, Cr2O3 0.25, MnO 0.5, V2O5 0.73, Co2O3 0.55, Ni2O3 0.6, S 0.46%. The coefficient of thermal expansion between 20 and 460° was 65.8 + 10⁻⁷, the softening point was 400°. On coating steel with this enamel and submitting it to 8 temperature changes from 350 to 18°, did not show any damage, whereas the conventional enamel 2015/3132 did not stand 5 of such thermal changes without damage. Slag B was also used in enamels for coating Al.

L7 ANSWER 26 OF 58 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1958:107827 CAPLUS

DOCUMENT NUMBER: 52:107827

ORIGINAL REFERENCE NO.: 52:19069g-i,19070a-c

TITLE: Thin ceramic coatings resistant to shock and high temperatures for protecting sheet metals

INVENTOR(S): Long, John V.

PATENT ASSIGNEE(S): Solar Aircraft Co.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2843507		19580715	US 1953-377381	19530831

AB Protective ceramic coatings for sheet metals are formed from a mixture of ingredients selected from various groups according to the properties desired. The mixture, when ground, applied to the metal as an aqueous suspension, and fired, forms a crystalline or cryptocryst. coating

having

about the same crystal lattice as the underlying metal so that a good structural fit is attained, and forms also an intermediate layer of interdiffused base metal and ceramic coating, to promote adherence. The preferred ceramic ingredients have isometric, tetragonal, or hexagonal crystalline structures, and certain stated x-ray space groups. The mixture should include ingredients chosen from at least 2 of the following groups: (I) beryl, mullite, K feldspar, spodumene, Zn Zr silicate, Ca Zr silicate, Ba zirconate, for promoting stability and durability of the coating; (II) Si, Al, Cr, Fe, Ni, Co, Cr2O3, Fe3O4, Fe2O3, NiO, Co3O4, MnO, Cu2O, for increasing adherence and resistance to thermal shock; (III) ZrO2, Al2O3, TiO2, ZrSiO4, SnO2, BeO, SiC, ZnO, for promoting durability of any glass phase formed; (IV) SiO2, B2O3, P2O5, to obtain more vitreous coatings; and (V) LiF, NaF, KF, CaF2, MgO, CaO, MoO2, as fluxes to make the coatings more impervious. Mixts., such as beryl about 50, Si 25, and SiC 25% require about 1 hr. of milling with water and a suspension agent, such as citric acid, Ca(NO3)2, methylcellulose, or the Na salt of polymerized D-mannuronic acid, before application to a base metal. Firing may be done at about 2200°F. for about 10 min. Coatings 0.002 in. thick protect sheet iron against oxidation at 1600°F. for extended periods, such as 120 hrs., with cyclic air quenching and soaking. Modified compns. have been derived by experiment for special uses through testing by thermal shock at temps. up to 2000°F, and other tests such as are used for vitreous enamelled metal samples. They may be 0.0005-0.003 in. thick and may be fired at 1500-2600°F. for 2-20 min., resp., preferably in N. Double

coatings may be applied when a vitreous, or an especially refractory, surface is desired. AISI type 314 steel was protected for 72 hrs. of cyclic testing at 1850°F. maximum temperature by firing first a coating of beryl 8, NiO 12, TiO₂ 6, and BeO 2 parts by weight at 2300°F. for 10 min. and secondly an outer coating of beryl 8, ZrO₂ 2, BeO 2, SiO₂ 8, B₂O₃ 2, LiF 1, and NaF 2 parts by weight at 2250°F. for 10 min., the total thickness of both coatings being 0.00075 in.

L7 ANSWER 27 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2004:78856 EPFULL
 ENTRY DATE PATENT: 20050323
 ENTRY DATE PUBLICATION: 20050323
 UPDATE DATE PUBLICAT.: 20061124
 DATA UPDATE DATE: 20061122
 DATA UPDATE WEEK: 200647
 TITLE (ENGLISH): Optical glass having a small photoelastic constant
 TITLE (FRENCH): Verre optique a faible constante photoelastique
 TITLE (GERMAN): Optisches Glas mit niedriger fotoelastischer Konstante
 INVENTOR(S): Junko, Ishioka, c/o Kabushiki Kaisha Ohara-6-9,
 Sagamihara, Sagamihara-shi, Kanagawa-ken, JP
 PATENT APPLICANT(S): KABUSHIKI KAISHA OHARA, 1-15-30, Oyama,
 Sagamihara-shi, Kanagawa-ken, JP
 PATENT APPL. NUMBER: 3120440
 AGENT: Joensson, Hans-Peter, et al, Patentanwaelte, von
 Kreisling Selting Werner, Deichmannhaus am Dom, 50667
 Koeln, DE
 AGENT NUMBER: 61904
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPA1 Application published with search report
 PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES:	EP 1516862	A1	20050323
	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI		
	LU MC NL PL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2004-21888	A	20040915
PRIORITY INFO.:	JP 2003-323274	A	20030916

ABEN

An optical glass having a small photoelastic constant (β) suitable for parts for polarizing optical system and light polarization control elements and having a refractive index (nd) within a range from 1.60 to 1.68 and an Abbe number (v_d) within a range from 40 to less than 65 comprises, as atoms constituting the optical glass,

[[P] [5 - 10 mol %]]
 [[Al] [1 - 3 mol %]]
 [[Ba] [8 - 13 mol %,]]
 [[Gd] [1 - 5 mol %]]
 [[Nb] [0.1 - 3 mol %]]
 [[F] [15 - 35 mol % and]]
 [[O] [40 - 52 mol %.]]

(image, 0.1, abstract drawing)

L7 ANSWER 28 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2003:133768 EPFULL
 ENTRY DATE PUBLICATION: 20051228
 UPDATE DATE PUBLICAT.: 20061206

DATA UPDATE DATE: 20061206
 DATA UPDATE WEEK: 200649
 TITLE (ENGLISH): BIOCOMPATIBLE MATERIAL
 TITLE (FRENCH): MATERIAU BIOCOMPATIBLE
 TITLE (GERMAN): BIOKOMPATIBLES MATERIAL
 INVENTOR(S): Martinez Fernandez, Julian, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES; Ramirez de Arellano Lopez, Antonio, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES; Varela Feria, Francisco Manuel, Universidad de Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES; Gonzalez Fernandez, Pio Manuel, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Serra Rodriguez, Julia A., Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Liste Carmueja, Sara, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Chiussi, Stefano, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Perez Borrajo, Jacinto, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Arias Otero, Jose Luis, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Leon Fong, Betty, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES; Perez-Martinez Y Perez-Amor, Mariano, Uni. de Vigo, ETS de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES
 PATENT APPLICANT(S): Universidad de Sevilla,, OTRI - Universidad de Sevilla, c/ Valparaíso, 5 1 planta, 41013 Sevilla, ES; Universidad de Vigo, Oficina I+D - Universidad de Vigo, Edificio CACTI, Campus Universitario de Vigo, 36200 Vigo (Pontevedra), ES
 PATENT APPL. NUMBER: 2431773; 1896640
 AGENT: Temino Cenicerós, Ignacio, Abril Abogados, Amador de los Ríos, 1 1, 28010 Madrid, ES
 AGENT NUMBER: 159233
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: Spanish
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPAl Application published with search report
 PATENT INFORMATION:
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	NUMBER	KIND	DATE
	EP 1609441	A1	20051228
	WO 2004056292		20040708
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2003-785961	A	20031216
	WO 2003-ES638	A	20031216
PRIORITY INFO.:	ES 2002-3052	A	20021220

ABEN

The invention relates to a novel biocompatible material which is intended to be used in the production of implants, prostheses or biomedical devices, comprising biomorphic SiC ceramics as a support material with a coating of bioactive glass that is deposited by means of pulsed laser ablation.

L7 ANSWER 29 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2002:112098 EPFULL

DATA UPDATE DATE: 20031210
 DATA UPDATE WEEK: 200350
 TITLE (ENGLISH): Biosoluble ceramic fiber composition with improved solubility in a physiological saline solution for a high temperature insulation material
 TITLE (FRENCH): Composition d'une ceramique biosoluble ayant une solubilite amelioree dans une solution saline physiologique pour un materiau d'isolation thermique a haute temperature
 TITLE (GERMAN): Biolesliche Keramikfaserzusammensetzung mit verbesserter Loeslichkeit in physiologischer Salzloesung fuer einen Hochtemperaturwaermedaemmstoff
 INVENTOR(S): Hong, Won Kak, 52-604 Karak Hyundai 5 cha Apt., 161-3 Karak-dong, Songpa-ku, Seoul, KR; Lee, Jae Wook, 302-1102 Shinan Apt., Kumi-dong, Boondang-ku, Sungnam, Kyunggi-do, KR; Kim, Kyung Hwan, No. 103, 128-3 Kumi-dong, Boondang-ku, Sungnam, Kyunggi-do, KR; Kim, Jin Yeol, 403-209 Samik Apt., Sooseo-dong, Kangnam-ku, Seoul, KR; Kim, Hyung Sung, 311-1005 Joogong Apt., Doonchon-dong, Kangdong-ku, Seoul, KR
 PATENT APPLICANT(S): Kumkang Korea Chemical Co., Ltd., 1301-4 Seocho-dong, Seocho-ku, Seoul, KR
 PATENT APPL. NUMBER: 4329290
 AGENT: Fairbairn, Angus Chisholm, Marks & Clerk, 57-60 Lincoln's Inn Fields, London WC2A 3LS, GB
 AGENT NUMBER: 81002
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPA3 Separate publication of search report
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 1323687	A3	20031210
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR		
EXTENSION STATES:	AL LT LV MK RO		
APPLICATION INFO.:	EP 2002-258984	A	20021227
PRIORITY INFO.:	KR 2001-88372	A	20011229

ABEN

The present invention relates to a biosoluble ceramic fiber composition with a superior solubility in a physiological saline solution for a high heat insulating material, and more particularly to the biosoluble ceramic fiber composition wherein the physiological saline solubility is improved by optimizing the amounts of network former (SiO₂), network modifiers (CaO and MgO) and intermediates (ZrO₂ and Al₂O₃), especially the physiological saline solubility at a high-viscosity range with a high proportion of network former (SiO₂) is improved by optimizing the amounts of intermediates (ZrO₂ and Al₂O₃); thermal and mechanical properties such as a heat resistance, a compressive strength and a restoring force are so improved as to be superior even at a high temperature by optimizing the amounts of network modifiers (CaO and MgO); and the conventional fiber forming equipments can be still employed to an economical advantage.

L7 ANSWER 30 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2002:42168 EPFULL
 DATA UPDATE DATE: 20040908
 DATA UPDATE WEEK: 200437
 TITLE (ENGLISH): Spark plug
 TITLE (FRENCH): Bougie d'allumage

TITLE (GERMAN): Zuendkerze
 INVENTOR(S): Nishikawa, Kenichi, c/o NGK Spark Plug Co., Ltd., 14-18
 Takatsuji-cho, Mizuho-ku, Nagoya-shi, Aichi, JP;
 Sugimoto, Makoto, c/o NGK Spark Plug Co., Ltd., 14-18
 Takatsuji-cho, Mizuho-ku, Nagoya-shi, Aichi, JP
 PATENT APPLICANT(S): NGK SPARK PLUG CO., LTD, 14-18, Takatsuji-cho,
 Mizuho-ku Nagoya-shi Aichi, JP
 PATENT APPL. NUMBER: 560166
 AGENT: Benson, John Everett, J. A. Kemp & Co., 14 South
 Square, Gray's Inn, London WC1R 5JJ, GB
 AGENT NUMBER: 47713
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPA3 Separate publication of search report
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 1271725	A3	20040908
DESIGNATED STATES:	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT		
	SE TR		
EXTENSION STATES:	AL LT LV MK RO SI		
APPLICATION INFO.:	EP 2002-254502	A	20020626
PRIORITY INFO.:	JP 2001-192668	A	20010626

ABEN

A spark plug comprising: a center electrode; a met shell; and an
 alumina ceramic insulator disposed between the center electrode and
 the metal shell, wherein at least part of the surface of the insulator is
 covered with a glaze layer comprising oxides, wherein the glaze layer
 comprises: 1 mol% or less of a Pb component in terms of PbO; 30 to 60 mol% of
 a Si component in terms of SiO₂; 20 to 50 mol% of a B component in
 terms of B₂O₃; 0.5 to 25 mol% of a Zn component in terms of ZnO;
 0.5 to 15 mol% in total of at least one of Ba and Sr components in terms of
 BaO and SrO, respectively; 2 to 12 mol% in total of at least two alkaline
 metal components of Na, K and Li, in terms of Na₂O, K₂O, and Li₂O,
 respectively, wherein K and Li is essential; and 0.1 to 10 mol% of a F
 component in terms of F₂.

(image, 0.1, abstract drawing)

L7 ANSWER 31 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2001:83627 EPFULL
 DATA UPDATE DATE: 20041103
 DATA UPDATE WEEK: 200445
 TITLE (ENGLISH): Spark plug
 TITLE (FRENCH): Bougie d'allumage
 TITLE (GERMAN): Zuendkerze
 INVENTOR(S): Nishikawa, Kenichi, c/o NGK Spark Plug Co. Ltd., 14-18
 Takatsuji-cho, Mizuho-ku, Nagoya, Aichi, JP; Kouge,
 Yoshihide, c/o NGK Spark Plug Co. Ltd., 14-18
 Takatsuji-cho, Mizuho-ku, Nagoya, Aichi, JP
 PATENT APPLICANT(S): NGK Spark Plug Company Limited, 14-18, Takatsuji-cho
 Mizuho-ku, Nagoya, Aichi, JP
 PATENT APPL. NUMBER: 560174
 AGENT: Nicholls, Michael John, J.A. KEMP & CO. 14, South
 Square Gray's Inn, London WC1R 5JJ, GB
 AGENT NUMBER: 61941
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English

LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 1193816	B1	20031112
DESIGNATED STATES:	DE FR GB IT		
APPLICATION INFO.:	EP 2001-308311	A	20010928
PRIORITY INFO.:	JP 2000-299380	A	20000929
	JP 2001-244462	A	20010810
CITED PATENT LIT.:	EP 959542	A	

ABEN

A spark plug retains a resistor and has formed on alumina-based insulator a glaze layer, in which the glaze layer contains Pb component in a content of 1 mol% or less in terms of PbO, contains Si component, B component, Zn component, Al component, Ba component and/or Sr component, and contains F component in a content of 1 mol% or less. In addition, the glaze layer contains one kind or more of alkaline metal components, with Li component being necessary, and further contains one kind or more of phosphate ion, sulfate ion, fluoride ion and chloride ion in a content of 0.5 to 10 mol%. The glaze layer has a Vickers hardness Hv of 100 or more, shows excellent strength, especially impact resistance in spite of a reduced content of Pb component.

(image, 0.1, abstract drawing)

L7 ANSWER 32 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2001:47002 EPFULL
UPDATE DATE PUBLICAT.: 20050127
DATA UPDATE DATE: 20050126
DATA UPDATE WEEK: 200504
TITLE (ENGLISH): Spark plug
TITLE (FRENCH): Bougie d'allumage
TITLE (GERMAN): Zuendkerze
INVENTOR(S): Nishikawa, Kenichi, c/o NGK Spark Plug Co., Ltd., 14-18 Takatsuji-cho, Mizuho-ku, Nagoya-shi, Aichi, JP
PATENT APPLICANT(S): NGK SPARK PLUG CO., LTD, 14-18, Takatsuji-cho, Mizuho-ku Nagoya-shi Aichi, JP
PATENT APPL. NUMBER: 560166
AGENT: Nicholls, Michael John, J.A. KEMP & CO. 14, South Square Gray's Inn, London WC1R 5LX, GB
AGENT NUMBER: 61943
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 1168546	B1	20040204
DESIGNATED STATES:	DE FR GB IT		
APPLICATION INFO.:	EP 2001-305672	A	20010629
PRIORITY INFO.:	JP 2000-197770	A	20000630
CITED PATENT LIT.:	EP 959542	A	
	US 5677250	A	

ABEN

The glaze layer 2d of the spark plug 100 includes oxides of: 15 to 60 mol% of a Si component in terms of SiO₂; 22 to 50 mol% of a B component in terms of B₂O₃; 10 to 30 mol% of a Zn component in terms of ZnO; 0.5 to 35 mol% of Ba and/or Sr components in terms of BaO or

SrO; 1 mol% or less of an F component; 0.1 to 5 mol% of an Al component in terms of Al₂O₃; and 5 to 10 mol% in total of at least one of alkaline metal components of Na, K and Li, in terms of Na₂O, K₂O, and Li₂, respectively, wherein Li is essential, and the amount of the Li component is 1.1 to 6 mol% in terms of Li₂O.

(image, 0.1, abstract drawing)

L7 ANSWER 33 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2001:27728 EPFULL
ENTRY DATE PUBLICATION: 20050525
UPDATE DATE PUBLICAT.: 20061220
DATA UPDATE DATE: 20061220
DATA UPDATE WEEK: 200651
TITLE (ENGLISH): A METHOD FOR ETCHING THE SURFACE OF A BIOACTIVE GLASS
TITLE (FRENCH): PROCEDE PERMETTANT DE GRAVER LA SURFACE D'UN VERRE BIOACTIF
TITLE (GERMAN): VERFAHREN ZUR AetzUNG DER OBERFLAeCHE EINES BIOAKTIVEN GLASSES
INVENTOR(S): Itaelae, Ari, Itaeinen pitkaekatu 11 a 27, 20520 Turku, FI; Aro, Hannu, Valtaojantie 4, 20810 Turku, FI; Hupa, Mikko, Rakuunatie 47, 20720 Turku, FI; Nordstroem, Egon, Norrskogsvaegen 3, 21600 Pargas, FI; Ylaenen, Heimo, Kunnallissairaalan tie 64, 20810 Turku, FI
PATENT APPLICANT(S): Vivoxid Oy, Tykistoe katu 4 A, 20520 Turku, FI
PATENT APPL. NUMBER: 4287350
AGENT: Heikkilae, Hannes Antero, Turun Patenttitoimisto Oy, P.O. Box 99, 20521 Turku, FI
AGENT NUMBER: 82342
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: Finnish
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 1261556	B1	20050525
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DESIGNATED STATES:	WO 2001066479	20010913
APPLICATION INFO.:	EP 2001-913903	A 20010223
PRIORITY INFO.:	WO 2001-FI188	A 20010223
CITED PATENT LIT.:	FI 2000-515	A 20000307
	WO 9621628	A1
	WO 9706896	A1
	US 4871384	A
	US 4946546	A
	US 5232878	A

L7 ANSWER 34 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2000:65657 EPFULL
UPDATE DATE PUBLICAT.: 20060810
DATA UPDATE DATE: 20060809
DATA UPDATE WEEK: 200632
TITLE (ENGLISH): NON-TOXIC, MICROBICIDAL DETERGENT
TITLE (FRENCH): DETERGENT MICROBICIDE NON TOXIQUE
TITLE (GERMAN): NICHT-TOXISCHES, MIKROBIOZIDES REINIGUNGSMITTEL

INVENTOR(S): LEE, Sean, Oberlinstrasse 17, D-76227 Karlsruhe, DE
 PATENT APPLICANT(S): Schott AG, Hattenbergstrasse 10, 55122 Mainz, DE
 PATENT APPL. NUMBER: 2550661
 AGENT: Fritzsche, Thomas, et al, Fuchs, Mehler, Weiss & Fritzsche Naupliastrasse 110, 81545 Muenchen, DE
 AGENT NUMBER: 60171
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: German
 LANGUAGE OF PUBL.: German
 LANGUAGE OF PROCEDURE: German
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPB1 Granted patent
 PATENT INFORMATION:
 PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 1194518	B1	20040922
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WO 2001004252		20010118
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DESIGNATED STATES: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

APPLICATION INFO.: EP 2000-956074 A 20000707

WO 2000-DE2230 A 20000707

PRIORITY INFO.: DE 1999-19932238 A 19990709

CITED PATENT LIT.: US 4155870 A

L7 ANSWER 35 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2000:58304 EPFULL

ENTRY DATE PUBLICATION: 20050824

UPDATE DATE PUBLICAT.: 20060803

DATA UPDATE DATE: 20060802

DATA UPDATE WEEK: 200631

TITLE (ENGLISH): SILVER-CONTAINING, SOL-GEL DERIVED BIOGLASS COMPOSITIONS

TITLE (FRENCH): COMPOSITIONS DE VERRE BIOACTIF CONTENANT DE L'ARGENT ET OBTENU PAR UNE TECHNIQUE SOL-GEL

TITLE (GERMAN): SILBERHALTIGE BIOGLAS-ZUSAMMENSETZUNGEN, DIE VON SOL-GEL ZUSTAENDEN ABGELEITET WERDEN

INVENTOR(S): BELLANTONE, Maria, 17 Cowley Street, London SW1F 3LZ, GB; COLEMAN, Nichola J., 17 Purbeck Road, Chatham, Kent ME4 6ED, GB; HENCH, Larry, L., 38 Clarence Gate Gardens, London NW1 6BA, GB

PATENT APPLICANT(S): Imperial College Innovations, 47 Prince's Gate, London SW7 2QA, GB

PATENT APPL. NUMBER: 3103210

AGENT: Clyde-Watson, Zoe, D Young & Co 120 Holborn, London EC1N 2DY, GB

AGENT NUMBER: 126711

DOCUMENT TYPE: Patent

LANGUAGE OF FILING: English

LANGUAGE OF PUBL.: English

LANGUAGE OF PROCEDURE: English

LANGUAGE OF TITLE: German; English; French

PATENT INFO TYPE: EPB1 Granted patent

PATENT INFORMATION:

PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 1196150	B1	20050824
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WO 2000076486		20001221
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DESIGNATED STATES: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT

SE
APPLICATION INFO.: EP 2000-939832 A 20000614
WO 2000-US16207 A 20000614
PRIORITY INFO.: US 1999-139014P P 19990614
CITED NON PATENT LIT.: PATENT ABSTRACTS OF JAPAN vol. 017, no. 659 (C-1137), 7
December 1993 (1993-12-07) & JP 05 213621 A (TOKUYAMA
SODA CO LTD), 24 August 1993 (1993-08-24);
PATENT ABSTRACTS OF JAPAN vol. 1997, no. 08, 29
August 1997 (1997-08-29) & JP 09 110463 A (ION KOGAKU
SHINKO ZAIDAN), 28 April 1997 (1997-04-28);
JORNAL OF BIOMEDICAL RESEARCH, vol. 51, no. 3, 5
September 2000 (2000-09-05), pages 484-490,
CITED PATENT LIT.: WO 8501210 A
WO 9404657 A
WO 9907777 A
US 5071674 A
US 5126141 A
US 5298260 A
US 5681872 A
US 5834008 A
US 5874101 A

L7 ANSWER 36 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1998:72160 EPFULL
ENTRY DATE PUBLICATION: 20050608
UPDATE DATE PUBLICAT.: 20060726
DATA UPDATE DATE: 20060726
DATA UPDATE WEEK: 200630
TITLE (ENGLISH): METHODS AND COMPOSITIONS FOR WHITENING TEETH
TITLE (FRENCH): METHODES ET COMPOSITIONS DE BLANCHIMENT DE DENTS
TITLE (GERMAN): VERFAHREN UND ZUSAMMENSETZUNGEN ZUM BLEICHEN VON
ZAEHNEN
INVENTOR(S): LITKOWSKI, Leonard, J., 621 Sussex Road, Baltimore, MD
21286, US; HACK, Gary, D., 8908 Skyrock Court,
Columbia, MD 21046, US; GREENSPAN, David, C., 3116
North West 62nd Terrace, Gainesville, FL 32606, US
PATENT APPLICANT(S): University of Maryland, Baltimore, 520 W. Lombard
Street, Baltimore, Maryland 21201-1627, US;
USBiomaterials Corporation, One Progress Boulevard, Box
No.23, Alachua, FL 32615, US
PATENT APPL. NUMBER: 594733; 2366000
AGENT: Nash, David Allan, et al, HASELTINE LAKE, Redcliff Quay
120 Redcliff Street, Bristol BS1 6HU, GB
AGENT NUMBER: 59251
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE
EP 1011621	B1	20050608

DESIGNATED STATES: WO 9913852 19990325
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT
SE
APPLICATION INFO.: EP 1998-946860 A 19980918
WO 1998-US18500 A 19980918
PRIORITY INFO.: US 1997-59222P P 19970918
CITED NON PATENT LIT.: EBISAWA Y. ET AL: 'Bioactivity of CaO.SiO2-based

glasses: in vitro evaluation' JOURNAL OF MATERIALS
SCIENCE: MATERIALS IN MEDICINE vol. 1, 1990, pages 239
- 244;

OHURA K. ET AL: 'Bone-bonding ability of P2O5-free
CaO.SiO2 glasses' JOURNAL OF BIOMEDICAL MATERIALS
RESEARCH vol. 25, 1991, pages 357 - 365;

JOURNAL OF APPLIED BIOMATERIALS vol. 2, 1991, pages
231 - 239, XP008032929;

CALCIFIED TISSUE INTERNATIONAL vol. 57, 1995, pages
155 - 160, XP008032945

CITED PATENT LIT.: EP 89136 A
WO 9610985 A
WO 9727148 A
WO 9951196 A
WO 9727148 A1
US 4348381 A
US 4632826 A
US 5432130 A
US 5735942 A

L7 ANSWER 37 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1997:79369 EPFULL
UPDATE DATE PUBLICAT.: 20060621
DATA UPDATE DATE: 20060614
DATA UPDATE WEEK: 200624
TITLE (ENGLISH): BIOACTIVE GLASS COMPOSITIONS FOR
USE IN THE TREATMENT OF TOOTH STRUCTURES
TITLE (FRENCH): COMPOSITION DE VERRE BIOACTIF POUR UTILISATION POUR LE
TRAITEMENT DE STRUCTURES DENTAIRES
TITLE (GERMAN): BIOAKTIVE GLASZUSAMMENSETZUNGEN ZUR VERWENDUNG ZUR.
BEHANDLUNG VON ZAHNSTRUKTUREN
INVENTOR(S): LITKOWSKI, Leonard, J., 621 Sussex Road, Baltimore, MD
21286, US; HACK, Gary, D., 8908 Skyrock Court,
Columbia, MD 21046, US; GREENSPAN, David, C., 3116 N.W.
62nd Terrace, Gainesville, FL 32606, US
PATENT APPLICANT(S): University of Maryland, Baltimore, 520 W. Lombard
Street, Baltimore, Maryland 21201-1627, US;
USBiomaterials Corporation, One Progress Boulevard, Box
No.23, Alachua, FL 32615, US
PATENT APPL. NUMBER: 594733; 2366000
AGENT: Nash, David Allan, HASELTINE LAKE, Redcliff Quay 120
Redcliff Street, Bristol BS1 6HU, GB
AGENT NUMBER: 59251
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 877716	B1	20041013
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WO 9727148		19970731
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DESIGNATED STATES: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
EXTENSION STATES: RO SI

APPLICATION INFO.: EP 1997-906489 A 19970129
WO 1997-US1785 A 19970129
PRIORITY INFO.: US 1996-10795P P 19960129
US 1996-597936 A 19960207
US 1997-789909 A 19970129

CITED NON PATENT LIT.: Encyclopedia of Chemical Technology, 3rd Ed., Vol. 21,
pp 106-108
CITED PATENT LIT.: EP 386525 A
EP 417018 A
EP 716049 A
WO 9610985 A
US 4057621 A
US 4239113 A
US 4605415 A
US 4775592 A
US 4775646 A
US 4783429 A
US 4851046 A
US 5120340 A
US 5204106 A
US 5429996 A

L7 ANSWER 38 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1996:42343 EPFULL
DATA UPDATE DATE: 20030827
DATA UPDATE WEEK: 200335
TITLE (ENGLISH): MULTI-COLOR LIGHT EMISSION APPARATUS AND METHOD FOR
PRODUCTION THEREOF
TITLE (FRENCH): DISPOSITIF EMETTEUR DE LUMIERE EN PLUSIEURS COULEURS ET
PROCEDE DE PRODUCTION DE CE DISPOSITIF
TITLE (GERMAN): VIELFARBIGE LICHTEMISSIONSVORRICHTUNG UND VERFAHREN ZUR
HERSTELLUNG DERSELBEN
INVENTOR(S): EIDA, Mitsuru, Idemitsu Kosan Co., Ltd. 1280,
Kamiizumi, Sodegaura-shi Chiba-ken 299-02, JP;
MATSUURA, Masahide, Idemitsu Kosan Co., Ltd. 1280,
Kamiizumi, Sodegaura-shi Chiba-ken 299-02, JP;
TOKAILIN, Hiroshi, Idemitsu Kosan Co., Ltd. 1280,
Kamiizumi, Sodegaura-shi Chiba-ken 299-02, JP
PATENT APPLICANT(S): IDEMITSU KOSAN COMPANY LIMITED, 1-1, Marunouchi 3-chome
Chiyoda-ku, Tokyo 100-0005, JP
PATENT APPL. NUMBER: 420820
AGENT: Gille Hrabal Struck Neidlein Prop Roos, Patentanwaelte,
Brucknerstrasse 20, 40593 Duesseldorf, DE
AGENT NUMBER: 100973
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: Japanese
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 809420	B1	20020904
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WO 9625020		19960815
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DESIGNATED STATES: BE CH DE FR GB IT LI NL SE

APPLICATION INFO.: EP 1996-901538 A 19960205

WO 1996-JP233 A 19960205

PRIORITY INFO.: JP 1995-41267 A 19950206

JP 1995-49089 A 19950214

JP 1995-299111 A 19951024

CITED PATENT LIT.: EP 387715 A

EP 550063 A

JP 2065094 A

JP 2082491 A

JP 3280395 A

ABEN

This invention provides a multi-color light emission apparatus wherein a transparent inorganic oxide substrate (4) is disposed between an organic EL device (1) and a fluorescent layer (3) in such a manner as to arrange the fluorescent layer (3) with a gap with the organic EL device (1), and the organic EL device (1) is sealed by sealing means (5) between the transparent inorganic oxide substrate (4) and a support substrate (2). The invention provides also a multi-color light emission apparatus wherein a transparent insulating inorganic oxide layer (12) having a thickness of 0.01 to 200 μm is interposed between the fluorescent layer (3) and the organic EL device (1). In this way, light emission life and angle-of-view characteristics can be improved.

(image, 0.1, abstract drawing)

L7 ANSWER 39 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1996:17574 EPFULL
DATA UPDATE DATE: 20000830
DATA UPDATE WEEK: 200035
TITLE (ENGLISH): Resistor for cathode ray tube and method of preparing same
TITLE (FRENCH): Resistance pour tube a rayons cathodique et methode pour sa production
TITLE (GERMAN): Widerstand fuer Kathodenstrahlrohr und Verfahren zu dessen Herstellung
INVENTOR(S): Aoki, Masaki, 5-12-1, Aoshinke, Minoo-shi, Osaka 562, JP; Ohtani, Mitsuhiro, 3-8-31, Kouryounakamachi, Sakai-shi, Osaka 591, JP; Yamashita, Katuyoshi, 5-7-206, Myoukenzaka, Katano-shi, Osaka 576, JP; Hiratani, Tatu, 6639-1, Takayama-cho, Ikoma-shi, Nara 630-01, JP; Murai, Ryuichi, 4-4-67-105, Kamishinden, Toyonaka-shi, Osaka 565, JP; Kudoh, Masatoshi, 39-5-507, Sakuragaoka-cho, Hiratake-shi, Osaka 573, JP; Ohmae, Hideharu, 4-20-3, Higashitoyonakamachi, Toyonaka-shi, Osaka 560, JP; Konda, Masahiko, 15-15, Takehashi-cho, Ibaraki-shi, Osaka 567, JP; Inoue, Mamoru, 1922-469, Noji-cho, Kusatsu-shi, Shiga 525, JP
PATENT APPLICANT(S): MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD, 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-0000, JP
PATENT APPL. NUMBER: 216884
AGENT: Eisenfuehr, Speiser & Partner, Martinistrasse 24, 28195 Bremen, DE
AGENT NUMBER: 100151
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES:	EP 776868	B1	19990915
APPLICATION INFO.:	DE		
PRIORITY INFO.:	EP 1996-119038	A	19961128
	JP 1995-309282	A	19951128
	JP 1996-37701	A	19960226
CITED PATENT LIT.:	EP 197584	A	
	EP 513909	A	
	US 4101708	A	
	US 4574055	A	
	US 4961022	A	
	US 4961023	A	

ABEN

The resistance layer formed on an inner face of the cathode ray tube has a resistance value with small dependency on sintering temperature and a superior characteristic of load and temperature.

The resistance layer contains RuO₂ having a particle size of 0.05 to 0.4 µm and the glass powder having a particle size of 0.01 to 2.0 µm and if necessary metal oxides having a particle size of 0.05 to 2.0 µm. The glass composition is preferably a PbO-B₂O₃-SiO₂-Al₂O₃-ZnO system.

(image, 0.1, abstract drawing)

L7 ANSWER 40 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1995:61055 EPFULL
DATA UPDATE DATE: 20020612
DATA UPDATE WEEK: 200224
TITLE (ENGLISH): GLASS MATERIAL, SUBSTITUTION MATERIAL OF LIVING TISSUE AND TEETH-STRAIGHTENING MATERIAL
TITLE (FRENCH): MATERIAU VITREUX, MATERIAU DE SUBSTITUTION DE TISSUS VIVANTS ET MATERIAU DE REFORCEMENT DENTAIRE
TITLE (GERMAN): GLASMATERIAL, ERSATZMATERIAL FUEr LEBENDES GEWEBE UND ZAHNVERSTAERKENDES MATERIAL
INVENTOR(S): NONAMI, Toru, c/o TDK Corporation 13-1, Nihonbashi 1-chome, Chuo-ku Tokyo 103, JP; TAKAHASHI, Chihiro, c/o TDK Corporation 13-1, Nihonbashi 1-chome, Chuo-ku Tokyo 103, JP; SANO, Tatsuji, c/o TDK Corporation 13-1, Nihonbashi 1-chome, Chuo-ku Tokyo 103, JP
PATENT APPLICANT(S): TDK Corporation, 13-1, Nihonbashi 1-chome, Chuo-ku, Tokyo-to 103, JP
PATENT APPL. NUMBER: 224160
AGENT: Adams, William Gordon, et al, RAWORTH, MOSS & COOK 36 Sydenham Road, Croydon Surrey CR0 2EF, GB
AGENT NUMBER: 27554
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: Japanese
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE

EP 742019	B1	20010620
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WO 9616683		19960606
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DESIGNATED STATES:

APPLICATION INFO.:

PRIORITY INFO.:

CITED NON PATENT LIT.:

CITED PATENT LIT.:

DE FR GB		
EP 1995-937200	A	19951128
WO 1995-JP2419	A	19951128
JP 1994-321358	A	19941130
JP 1995-219849	A	19950804
PATENT ABSTRACTS OF JAPAN vol. 013, no. 221 (C-598), 23 May 1989 & JP 01 032867 A (SHIGERU SAITO;OTHERS: 01), 2 February 1989		
EP 399787	A	
DE 4207180	A	
JP 56007708	A	
JP 62231668	A	
JP 63082670	A	

ABEN

A glass material of the invention contains SiO₂, MgO, Al₂O₃, and TiO₂ as main components in amounts of 40-65% by weight of SiO₂, 9-30% by weight of MgO, 8-31% by weight of Al₂O₃, and 6-15% by weight of TiO₂, and satisfies expression I: $(100 - (A + S + T))/S \geq 0.340$ wherein A, S and T are contents in % by weight of Al₂O₃, SiO₂, and TiO₂, respectively, and Expression II: $(S + M)/4 > 100 - (S + M + A + T)$ wherein M is a content in % by weight of MgO, and is substantially free of fluorine. It is used in the preparation of a living tissue replacement or orthodontic part. A living tissue replacement and orthodontic part which experience a minimal loss of material properties in a deleterious environment as in the oral cavity and should have a complex shape as in the case of a dental crown repair, high strength and aesthetic appearance can be briefly prepared in a safe manner without using a special manufacturing apparatus.

L7 ANSWER 41 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1994:45234 EPFULL
UPDATE DATE PUBLICAT.: 20051207
DATA UPDATE DATE: 20051207
DATA UPDATE WEEK: 200549
TITLE (ENGLISH): RESORBABLE BIOACTIVE PHOSPHATE CONTAINING CEMENTS
TITLE (FRENCH): CEMENTS CONTENANT DU PHOSPHATE BIOACTIF, CAPABLES DE SE RESORBER
TITLE (GERMAN): RESORBIERBARE, BIOAKTIVE PHOSPAT-ZEMENTE
INVENTOR(S): Liu, Sung-Tsuen, 29 Landing, Laguna Niguel, California 92677, US; Chung, Harvey H., 43 Via Costa Verde, Rancho Palos Verdes, California 92074, US
PATENT APPLICANT(S): Ceramedical, Inc., 29 Landing, Laguna Niguel, CA 92677, US
PATENT APPL. NUMBER: 2320650
AGENT: Curtis, Philip Anthony, et al, A.A. Thornton & Co., 235 High Holborn, London WC1V 7LE, GB
AGENT NUMBER: 55274
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	NUMBER	KIND	DATE
	EP 729365	B1	20020731
	WO 9513835		19950526
DESIGNATED STATES:	AT BE CH DE DK ES FR GB IE IT LI NL SE		
APPLICATION INFO.:	EP 1994-909408	A	19931115
	WO 1993-US11071	A	19931115
PRIORITY INFO.:	EP 1994-909408	A	19931115 *
	WO 1993-US11071	A	19931115 *
CITED PATENT LIT.:	EP 324425	A	
	EP 520690	A	
	EP 538914	A	
	WO 9000892	A	
	US 5149368	A	
	US 5218035	A	
	US 5262166	A	

L7 ANSWER 42 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1994:11590 EPFULL

DATA UPDATE DATE: 19950308
 DATA UPDATE WEEK: 199510
 TITLE (ENGLISH): Canasite-apatite glass-ceramics
 TITLE (FRENCH): Vitroceramiques de canasite-apatite
 TITLE (GERMAN): Canasit-Apatit Glaskeramiken
 INVENTOR(S): Wolcott, Christine Coulter, Corning Inc., Patent Dep.,
 SP FR 02-12, Corning, NY 14831, US
 PATENT APPLICANT(S): Corning Incorporated, Houghton Park, Corning New York
 14831, US
 PATENT APPL. NUMBER: 210458
 AGENT: Smith, Sydney, et al, Elkington and Fife Prospect House
 8 Pembroke Road, Sevenoaks, Kent TN13 1XR, GB
 AGENT NUMBER: 36071
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPA1 Application published with search report
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 641556	A1	19950308
DESIGNATED STATES:	DE FR GB IT		
APPLICATION INFO.:	EP 1994-111963	A	19940801
PRIORITY INFO.:	US 1993-114759	A	19930901

ABEN

A glass-ceramic biomaterial having high strength and toughness, a family of glasses from which the glass-ceramic biomaterial can be produced, and a method of production. The material has a primary crystal phase of F-canosite and a secondary crystal phase of F-apatite. The glass family is SiO₂-CaO-Na₂O-K₂O-P₂O₅-F. The method may be a single stage heat treatment, or a two stage involving an initial nucleation and a subsequent crystallization.

(image, 0.1, abstract drawing)

L7 ANSWER 43 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1994:7393 EPFULL
 DATA UPDATE DATE: 20000308
 DATA UPDATE WEEK: 200010
 TITLE (ENGLISH): Glass material, living tissue replacement, method for
 preparing living tissue replacement, and living tissue
 replacement molding apparatus
 TITLE (FRENCH): Materiau en verre, remplacement de tissu vivant,
 methode de preparation d'un remplacement de tissu
 vivant et installation pour le moulage de ce
 remplacement
 TITLE (GERMAN): Glasmaterial, Ersatz fuer lebendes Gewebe, Verfahren
 zur Herstellung eines Ersatzes fuer lebendes Gewebe und
 Anlage zum Formpressen dieses Ersatzes
 INVENTOR(S): Nonami, Toru c/o TDK Corporation, 13-1, Nihonbashi
 1-chome Chuo-ku, Tokyo, JP; Sano, Tatsuji c/o TDK
 Corporation, 13-1, Nihonbashi 1-chome Chuo-ku, Tokyo,
 JP; Tsutsumi, Sadami 2, Morigamae-cho, Uzumasa,
 Ukyo-ku, Kyoto-shi, Kyoto-fu, JP; Urabe, Tetsuo, 10-22,
 Shimeien Ibaraki-shi, Osaka-fu, JP; Fukuma, Masahiro,
 D32-304, 2-1, Karigaoka 9-chome, Hirakata-shi Osaka-fu,
 JP
 PATENT APPLICANT(S): TDK Corporation, 13-1, Nihonbashi 1-chome, Chuo-ku,
 Tokyo-to 103, JP
 PATENT APPL. NUMBER: 224160
 AGENT: Vogeser, Werner, Dipl.-Ing., et al, Patent- und

Rechtsanwaelte Hansmann, Vogeser, Dr. Boecker, Alber,
Dr. Strych, Liedl Albert-Rosshaupter-Strasse 65, 81369
Muenchen, DE

AGENT NUMBER: 12254
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 626165	B1	19990317
DESIGNATED STATES:	DE FR GB		
APPLICATION INFO.:	EP 1994-107633	A	19940517
PRIORITY INFO.:	JP 1993-139099	A	19930517
	JP 1993-214944	A	19930806
	JP 1993-353680	A	19931229
	JP 1994-80966	A	19940328
CITED PATENT LIT.:	EP 231773	A	
	EP 401793	A	
	DE 4207180	A	

ABEN

A living tissue replacement of crystallized glass having bioaffinity and mechanical strength is briefly obtained simply by pressure molding or machining without using a special equipment. A glass material having a softening point below its crystallization temperature and exhibiting viscous flow at temperatures below its melting point is heated at a temperature above its Tg and pressed at the temperature to mold to a desired shape, thereby manufacturing a living tissue replacement such as a dental crown. Molding can be done under a pressure of up to 20 MPa.

L7 ANSWER 44 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1993:42684 EPFULL
DATA UPDATE DATE: 20030219
DATA UPDATE WEEK: 200308
TITLE (ENGLISH): CEMENTS FROM BETA-DICARBONYL POLYMERS
TITLE (FRENCH): CEMENTS PRODUITS A PARTIR DE POLYMERES DE
\$g(b)-DICARBONYLE
TITLE (GERMAN): BETA-DICARBONYL POLYMERZEMENT
INVENTOR(S): MITRA, Sumita, B., Post Office Box 33427, Saint Paul,
MN 55133-3427, US
PATENT APPLICANT(S): MINNESOTA MINING AND MANUFACTURING COMPANY, (3m), 3M
Center, P.O. Box 33427, St. Paul, Minnesota 55133-3427,
US
PATENT APPL. NUMBER: 300410
AGENT: Hammond, Andrew David, et al, Albihns Patentbyra
Goeteborg AB P.O.Box 142, 401 22 Goeteborg, SE
AGENT NUMBER: 74671
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

NUMBER	KIND	DATE
EP 627907	B1	19970305

WO 9316676 19930902
 DESIGNATED STATES: CH DE DK ES FR GB IT LI NL SE
 APPLICATION INFO.: EP 1993-903089 A 19930115
 WO 1993-US380 A 19930115
 PRIORITY INFO.: US 1992-843420 A 19920227
 CITED PATENT LIT.: EP 313387 A
 DE 4141174 A
 GB 2213157 A
 US 4209434 A
 US 5017649 A

L7 ANSWER 45 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1993:14049 EPFULL
 DATA UPDATE DATE: 19940413
 DATA UPDATE WEEK: 199415
 TITLE (ENGLISH): Bone grafting material
 TITLE (FRENCH): Matériau de remplacement pour les os
 TITLE (GERMAN): Knochenersatzmaterial
 INVENTOR(S): Kaneko, Norio, 35, Yoshida-machi, Totsuka-ku,
 Yokohama-shi, Kanagawa-ken, JP
 PATENT APPLICANT(S): NIKON CORPORATION, 2-3, Marunouchi 3-chome,
 Chiyoda-Ku,, Tokyo, JP
 PATENT APPL. NUMBER: 1099910
 AGENT: DELETED Blumbach Weser Bergen Kramer Zwirner Hoffmann
 Patentanwaelte R. 102(1) 31.12.1994, Radeckestrasse 43,
 D-81245 Muenchen, DE
 AGENT NUMBER: 100370
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPA1 Application published with search report
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 591696	A1	19940413
DESIGNATED STATES:	DE FR GB		
APPLICATION INFO.:	EP 1993-114503	A	19930909
PRIORITY INFO.:	JP 1992-271280	A	19921009

ABEN

A bone grafting material for use in medicine is glass wool which has the mean diameter of 100 µm or less and whose composition is:

[[SiO2] [40 - 62 % (w/w)]]
 [[Na2O] [10 - 32 % (w/w)]]
 [[CaO] [10 - 32 % (w/w)]]
 [[P2O5] [0 - 12 % (w/w)]]
 [[CaF2] [0 - 12 % (w/w)]]
 [[B2O3] [0 - 20 % (w/w)]]

When said grafting material is used for treatment of periodontal disease, the grafting material is completely replaced by newly formed bone, wherein dental ankylosis of the grafting material to a tooth root does not occur and the newly formed bone and the tooth root are bound with a tissue like a periodontal membrane.

L7 ANSWER 46 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1990:29358 EPFULL
 DATA UPDATE DATE: 19941221
 DATA UPDATE WEEK: 199451
 TITLE (ENGLISH): Magnetic memory storage devices

TITLE (FRENCH): Dispositif magnetique de stockage d'information
 TITLE (GERMAN): Magnetische Datenspeichervorrichtung
 INVENTOR(S): Alpha, James William, 179 Watauga Avenue, Corning, New York 14830, US; Pinckney, Linda Ruth, 1546 Caton Road, Corning, New York 14830, US; Morgan, Walter Lane, 104 Weston Lane, Painted Post, New York 14870, US
 PATENT APPLICANT(S): Corning Incorporated, Houghton Park, Corning New York 14831, US
 PATENT APPL. NUMBER: 210458
 AGENT: Smith, Sydney, et al, Elkington and Fife Prospect House 8 Pembroke Road, Sevenoaks, Kent TN13 1XR, GB
 AGENT NUMBER: 36071
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPB1 Granted patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 384574	B1	19941221
DESIGNATED STATES:	BE DE FR GB IT NL		
APPLICATION INFO.:	EP 1990-300662	A	19900122
PRIORITY INFO.:	US 1989-314883	A	19890224
CITED NON PATENT LIT.:	GLASS AND CERAMICS. vol. 44, no. 7-8, August 1987, NEW YORK US pages 286 - 290; Z.G. BEZSMERTNAYA ET AL: "A NEW MECHANICALLY TREATED GLASS CRYSTAL MATERIAL"; PATENT ABSTRACTS OF JAPAN vol. 11, no. 268 (C-444) (2715) 29 August 1987, & JP-A-62 72547 (T. MORISANE) 3 April 1987,		
CITED PATENT LIT.:	EP 47330	A	
	EP 222478	A	
	JP 6272547	A	
	JP 63210039	A	
	US 3689293	A	
	US 3905824	A	
	US 4386162	A	
	US 4467039	A	

ABEN

The present disclosure is related to the fabrication of a magnetic memory storage device consisting essentially of a head pad and a rigid information disk, which disk consists essentially of a rigid substrate having a coating of magnetic media on the surface thereof facing the head pad. More particularly, this disclosure is directed to a substrate for use in the disk. The substrate is selected from two different groups of glass-ceramics: the first group contains a sheet silicate as the predominant crystal phase; and the second group contains a chain silicate as the predominant crystal phase.

L7 ANSWER 47 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1990:10395 EPFULL
 DATA UPDATE DATE: 19951004
 DATA UPDATE WEEK: 199540
 TITLE (ENGLISH): Use of ceramic materials for living hard tissue replacements
 TITLE (FRENCH): Utilisation de ceramiques comme matieres de remplacement de tissu vivant
 TITLE (GERMAN): Verwendung von keramischen Materialien als Ersatzmaterialien fuer lebendes Gewebe
 INVENTOR(S): Nonami, Tohru, c/o TDK Corporation, 13-1 Nihonbashi 1-chome, Chuo-ku, Tokyo, JP; Noma, Hiroyasu, 6-10-414 Tsudanuma 2-chome, Narashino-shi, Chiba, JP; Nakajima, Shinya, 12-10-606 Tsudanuma, 2-chome, Narashino-shi,

PATENT APPLICANT(S): Chiba, JP
 TDK Corporation, 13-1, Nihonbashi 1-chome, Chuo-ku,
 Tokyo-to 103, JP
 PATENT APPL. NUMBER: 224160
 AGENT: Wey, Hans-Heinrich, Dipl.-Ing., et al, c/o Kanzlei
 Hansmann, Vogeser und Partner Albert
 Rosshaupter-Strasse 65, 81369 Muenchen, DE
 AGENT NUMBER: 13062
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPB1 Granted patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 401793	B1	19951004
DESIGNATED STATES:	DE FR GB NL		
APPLICATION INFO.:	EP 1990-110716	A	19900606
PRIORITY INFO.:	JP 1989-142058	A	19890606
	JP 1990-55126	A	19900308
	JP 1990-131191	A	19900523
CITED NON PATENT LIT.:	BIOMATERIALS, vol. 12, 1991; T. KOKUBO, pp. 155-163		
CITED PATENT LIT.:	FR 2612918	A	
	GB 2080281	A	
	US 3926647	A	

ABEN

The materials for living hard tissue replacements of the present invention comprise a ceramic material which contain Cao and SiO₂ as essential components, and MgO as an optional components, are substantially free from calcium phosphate and are capable of forming a compound based on calcium phosphate by contact with an aqueous solution containing phosphorus, and show high biological affinity.

L7 ANSWER 48 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1989:36229 EPFULL
 DATA UPDATE DATE: 19950830
 DATA UPDATE WEEK: 199535
 TITLE (ENGLISH): Heat-generating ceramics body for hyperthermia and method of producing the same
 TITLE (FRENCH): Corps ceramique thermogene pour l'hyperthermie et sa methode de production
 TITLE (GERMAN): Waermeerzeugender keramischer Koerper fuer Hyperthermie und Verfahren zu seiner Erzeugung
 INVENTOR(S): Kokubo, Tadashi, 46-1, Yokoyama Shimokaiinji, Nagaokakyo City Kyoto-Fu, JP; Yamamuro, Takao, 100-33, Kitanokuchi Mozume-Cho, Muko City Kyoto-Fu, JP; Ohura, Koichiro 603, Takehana Heights, 6, Takehanajizoji-Minami-Machi, Yamashina-Ku Kyoto-City Kyoto-Fu, JP; Ebisawa, Yukihiro, 19-10, Tomio-Izumigaoka, Nara City Nara Pref., JP
 PATENT APPLICANT(S): KYOTO UNIVERSITY, 36 Yoshidahon-Machi Sakyo-ku, Kyoto City Kyoto-Fu, JP
 PATENT APPL. NUMBER: 621830
 AGENT: Cresswell, Thomas Anthony, et al, J.A. KEMP & CO. 14 South Square Gray's Inn, London WC1R 5LX, GB
 AGENT NUMBER: 50352
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French

PATENT INFO TYPE: EPB1 Granted patent

PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 361797	B1	19950830
DESIGNATED STATES:	DE FR GB IT NL		
APPLICATION INFO.:	EP 1989-309645	A	19890921
PRIORITY INFO.:	JP 1988-238786	A	19880926
CITED NON PATENT LIT.:	INTERNATIONAL CONGRESS ON GLASS, Kyoto, 8th December 1974, part 2, pages 9-30 -9-41, Ceramic Society of Japan, Kyoto, JP; L.L. HENCH: "Biomedical applications and glass corrosion"		
CITED PATENT LIT.:	EP 40512	A	
	FR 2243915	A	
	US 4043821	A	

ABEN

An excellent heat-generating ceramics body for hyperthermia of cancers is provided, comprising ferromagnetic ferrite particles, and a bioactive inorganic material layer surrounding the ferrite particles. The inorganic material layer has a composition to form apatite in a living body when embedded therein which has a high affinity to surrounding tissues of a living body and a property of not being perceived as a foreign material by the surrounding tissues by forming an apatite structure thereon, and the ferrite particles exhibits a highly efficient magnetic induction heat generation in an alternative magnetic field, without liberating noxious ions therefrom. The heat-generating ceramics body is particularly useful for deep cancers like bone tumors, can be applied in various shapes of powder, shaped bulk form or fiber depending on administration means, and can be used continuously or for a long period without an adverse influence. Methods of producing the same are also provided.

L7 ANSWER 49 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1988:7329 EPFULL
DATA UPDATE DATE: 19910904
DATA UPDATE WEEK: 199136
TITLE (ENGLISH): Glass ceramics
TITLE (FRENCH): Vitroceramique
TITLE (GERMAN): Glaskeramik
INVENTOR(S): Takahashi, Katsuaki, 391 Hama Okayama City, JP; Miura, Yoshinari, 1155, Chikuma Kamigoricho, Akoh district Hyogo Prefecture, JP; Osaka, Akiyoshi, 416-1, Ohdaracho Okayama city, JP; Asada, Masayuki, 858-12, Mizue Kurashiki city, JP
PATENT APPLICANT(S): KURARAY CO., LTD., 1621 Sakazu, Kurashiki-City Okayama Prefecture 710, JP
PATENT APPL. NUMBER: 298710
AGENT: VOSSIUS & PARTNER, Postfach 86 07 67, 81634 Muenchen, DE
AGENT NUMBER: 100311
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 291013	B1	19910904
DESIGNATED STATES:	DE FR GB IT		
APPLICATION INFO.:	EP 1988-107494	A	19880510
PRIORITY INFO.:	JP 1987-115434	A	19870511
CITED NON PATENT LIT.:	PATENT ABSTRACTS OF JAPAN, vol. 10, no. 335		

(C-384) [2391], 13th November 1986; & JP-A-61 141 641
(HOYA CORP) 28-06-1986;

JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol. 67,
no. 6, June 1984, pages C-100-C-101, Columbus, Ohio,
US; S. KIHARA et al.: "Calcium phosphate glass-ceramic
crown prepared by lost-wax technique"

CITED PATENT LIT.: DE 2808647 A
DE 3500287 A

ABEN

A glass ceramic comprising at least 90 weight percent of a
glass composed of
CaO : 17-28 weight percent
P2O5 : 13-26 weight percent
Al2O3 : 25-38 weight percent
B2O3 : 20-37 weight percent (all based on the total weight of
the glass ceramic),
with the atomic ratio of calcium to phosphorus within the range of 1.30 to
1.75, and apatite crystals dispersed as dominant crystals in said glass.

This glass ceramic is particularly useful as a biological
material.

L7 ANSWER 50 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1987:29236 EPFULL
DATA UPDATE DATE: 19880316
DATA UPDATE WEEK: 198811
TITLE (ENGLISH): Synthesis of inorganic crystalline fibers
TITLE (FRENCH): Synthese de fibres cristallines minerales
TITLE (GERMAN): Synthese anorganischer kristalliner Fasern
INVENTOR(S): Flannery, James Elwin, 110 East Third Street, Corning
New York 14830, US; Wexell, Dale Richard, 372 West
Second Street, Corning New York 14830, US
PATENT APPLICANT(S): Corning Glass Works, Sullivan Park FR-212, Corning New
York 14831, US
PATENT APPL. NUMBER: 210453
AGENT: Froud, Clive, et al, Elkington and Fife Prospect House
8 Pembroke Road, Sevenoaks, Kent TN13 1XR, GB
AGENT NUMBER: 51991
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPA2 Application published without search report
PATENT INFORMATION:
PATENT INFORMATION:

NUMBER	KIND	DATE
NUMBER	KIND	DATE
EP 260063	A2	19880316
EP 260063	A3	19890125
DESIGNATED STATES:	DE FR GB IT	
APPLICATION INFO.:	EP 1987-307770	A 19870903
PRIORITY INFO.:	US 1986-904663	A 19860908

ABEN

A inorganic crystalline fiber characterised in that it contains a minor
amount of MoO3 and/or WO3 and/or As2O3 and wherein the predominant crystal
phase is selected from fluormica, a fluoramphibole, canasite, potassium
and/or sodium fluorrichterite, fluorapatite, and a fluoride-containing,
spodumene-type crystal is disclosed, as is the production thereof.

ACCESSION NUMBER: 1987:553 EPFULL
 DATA UPDATE DATE: 19910424
 DATA UPDATE WEEK: 199117
 TITLE (ENGLISH): Mold, method of producing mold and casting method
 TITLE (FRENCH): Moule, son procede de fabrication et procede de coulee
 TITLE (GERMAN): Giessform, Verfahren zur ihrer Herstellung und Giessverfahren
 INVENTOR(S): Uchida, Seiju, 10-1-501, Wada 6-chome, Tamano-shi Okayama, JP; Hashimoto, Akio, 625, Matsunami-Cho, Takamatsu-Shi Kagawa, JP; Okuyama, Gen, 2-24-1, Chikko, Tamano-Shi Okayama, JP; Degawa, Toru, 2465-31, Amagi, Fujito-Cho, Kurashiki-Shi Okayama, JP; Sato, Takashi, 3-23, Nishitaga 1-Chome, Sendai-Shi.sctn.Kiyagi, JP; Fujiwara, Kozo, 8-24, Tai 2-Chome, Tamano-Shi Okayama, JP
 PATENT APPLICANT(S): MITSUI ENGINEERING & SHIPBUILDING CO., LTD, 6-4 Tsukiji 5-chome, Chuo-ku, Tokyo 104, JP
 PATENT APPL. NUMBER: 331440
 AGENT: Gruenecker, Kinkeldey, Stockmair & Schwanhaeusser Anwaltssozietat, Maximilianstrasse 58, 80538 Muenchen, DE
 AGENT NUMBER: 100721
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPB1 Granted patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 233478	B1	19910424
DESIGNATED STATES:	DE FR GB IT SE		
APPLICATION INFO.:	EP 1987-100559	A	19870116
PRIORITY INFO.:	JP 1986-7658	A	19860117
	JP 1986-7659	A	19860117
	JP 1986-7660	A	19860117
	JP 1986-7661	A	19860117
	JP 1986-7662	A	19860117
	JP 1986-7663	A	19860117
	JP 1986-7664	A	19860117
	JP 1986-10916	A	19860121
CITED PATENT LIT.:	DE 2047041	A	
	GB 1346576	A	
	US 1902419	A	
	US 2201366	A	
	US 2876122	A	
	US 3460606	A	
	US 511885	H	

ABEN

Disclosed are a porous calcia mold containing not less than 40 wt% CaO, a mold containing 95 to 10 wt% CaO and 5 to 50 wt% graphite, a mold containing not less than 40 wt% CaO, not more than 5 wt% low-eutectic temperature oxide and not more than 40 wt% high-eutectic temperature oxide, and a mold provided with a layer containing not less than 40 wt% CaO on the surface which comes into contact with a molten metal.

A method of producing a porous mold by baking a molded body obtained by a slip casting method or an injection molding method, and a method of producing a mold by baking a molded body (1) while bringing a member for preventing the deformation of a molded body (2) into contact with the molded

body (1) are also disclosed.

In addition, a method of casting a highly active metal, a high-melting point metal, or an alloy containing such a metal by using one of the above-described molds, and a casting method comprising the steps of placing a bottomless porous calcia mold on a metal chill plate, pouring a molten metal by top-pouring and gradually solidifying the molten metal from the lower part while insulating the riser are also disclosed.

L7 ANSWER 52 OF 58 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 1986:27545 EPFULL
DATA UPDATE DATE: 19900131
DATA UPDATE WEEK: 199005
TITLE (ENGLISH): Glass-ceramics containing cristobalite and potassium fluorrichterite
TITLE (FRENCH): Vitroceramique contenant de la cristobalite et de la fluororichterite de potassium
TITLE (GERMAN): Cristobalit und Kalium-Fluorrichterit enthaltende Glaskeramik
INVENTOR(S): Beall, George Halsey, 106 Woodland Drive, Big Flats New York 14814, US; Pinckney, Linda Ruth, 103 Split Rail, Painted Post New York, US; Megles, John Edward, Jr., 78 Corning Boulevard, Corning New York, US
PATENT APPLICANT(S): Corning Glass Works, Sullivan Park FR-212, Corning New York 14831, US
PATENT APPL. NUMBER: 210453
AGENT: Smith, Sydney, et al, Elkington and Fife Prospect House 8 Pembroke Road, Sevenoaks, Kent TN13 1XR, GB
AGENT NUMBER: 36071
DOCUMENT TYPE: Patent
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
LANGUAGE OF PROCEDURE: English
LANGUAGE OF TITLE: German; English; French
PATENT INFO TYPE: EPB1 Granted patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
	EP 222478	B1	19900131
DESIGNATED STATES:	AT BE DE FR GB IT NL		
APPLICATION INFO.:	EP 1986-307475	A	19860930
PRIORITY INFO.:	US 1985-794841	A	19851104
CITED PATENT LIT.:	GB 1307303	A	
	US 3839056	A	
	US 4467039	A	

ABEN

This invention is directed to the production of glass-ceramic articles exhibiting great toughness, a modulus of rupture of at least 20,000 psi, (137,900 kPa) and, in the form of bars having dimensions 5"x0.5"x0.1", (12.70x1.27x0.254 cm) sagging during the crystallization heat treatment of no more than 0.2" (0.508 cm) over a 4" (10.16 cm) span, and wherein potassium fluorrichterite constitutes the predominant crystal phase but wherein cristobalite is also present in an amount of at least 10% by volume. The inventive articles having an overall composition consisting essentially, in weight percent on the oxide basis, of:

(image, 18.1, tabular data)

L7 ANSWER 53 OF 58 MEDLINE on STN

ACCESSION NUMBER: 2004127553 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15020110
TITLE: On the microstructure of biocomposites sintered from Ti, HA and bioactive glass.

AUTHOR: Ning C Q; Zhou Y
 CORPORATE SOURCE: Center for Biomedical Engineering, Wenner Gren Research Laboratory, University of Kentucky, Lexington, KY 40506, USA.. cqning@yahoo.com
 SOURCE: Biomaterials, (2004 Aug) Vol. 25, No. 17, pp. 3379-87. Journal code: 8100316. ISSN: 0142-9612.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: (EVALUATION STUDIES)
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200410
 ENTRY DATE: Entered STN: 16 Mar 2004
 Last Updated on STN: 28 Oct 2004
 Entered Medline: 27 Oct 2004

AB Sintering reactions and fine structures of the biocomposites prepared from powder mixtures of titanium (α -Ti), hydroxyapatite (HA) and bioactive glass (BG) (SiO_2 -CaO-P2O5-B2O3-MgO-TiO2-CaF2) were investigated by X-ray diffraction and transmission electron microscopy. The results showed that complex reactions among the starting materials mainly depended on the initial Ti/HA ratios as well as the sintering temperatures. And the reaction could be expressed by the following illustrative equation: $\text{Ti} + \text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2 \rightarrow \text{CaTiO}_3 + \text{CaO} + \text{Ti}_x\text{Py} + (\text{Ti}_2\text{O}) + (\text{Ca}_4\text{P}_2\text{O}_9) + \text{H}_2\text{O}$.

L7 ANSWER 54 OF 58 MEDLINE on STN
 ACCESSION NUMBER: 92305149 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 1610964
 TITLE: Influence of substituting B2O3 for CaF2 on the bonding behaviour to bone of glass-ceramics containing apatite and wollastonite.
 AUTHOR: Kitsugi T; Yamamuro T; Nakamura T; Yoshii S; Kokubo T; Takagi M; Shibuya T
 CORPORATE SOURCE: Department of Orthopaedic Surgery, Faculty of Medicine, University of Kyoto, Japan.
 SOURCE: Biomaterials, (1992) Vol. 13, No. 6, pp. 393-9. Journal code: 8100316. ISSN: 0142-9612.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Space Life Sciences
 ENTRY MONTH: 199207
 ENTRY DATE: Entered STN: 7 Aug 1992
 Last Updated on STN: 6 Feb 1998
 Entered Medline: 30 Jul 1992

AB Glass-ceramics containing crystalline oxy-fluoroapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{O},\text{F}_2)$) and wollastonite (CaSiO_3) (designated AWGC) are reported to have a fairly high mechanical strength as well as the capability of forming a chemical bond with bone tissue. The chemical composition is MgO 4.6, CaO 44.9, SiO_2 34.2, P2O5 16.3, and CaF2 0.5 in weight ratio. In this study the influence of substituting B2O3 for CaF2 on the bonding behaviour of glass-ceramics containing apatite and wollastonite to bone tissue was investigated. Two kinds of glass-ceramics containing apatite and wollastonite were prepared. CaF2 0.5 was replaced with B2O3 at 0.5 and 2.0 in weight ratio (designated AWGC-0.5B and AWGC-2.0B). Rectangular ceramic plates (15 x 10 x 2 mm, abraded with Number 2000 alumina powder) were implanted into a rabbit tibia. The failure load, when an implant detached from the bone, or the bone itself broke, was measured. The failure load of AWGC-0.5B was 8.00 +/- 1.82 kg at 10 weeks after implantation and 8.16 +/- 1.36 kg at 25 weeks after implantation. The failure load of AWGC-2B was 8.08 +/- 1.70 kg at 10 weeks after implantation and 9.92 +/- 2.46 kg at 25 weeks after implantation. None of the loads for the two kinds of glass-ceramics

decreased as time passed. Giemsa surface staining and contact microradiography revealed direct bonding between glass-ceramics and bone. SEM-EPMA showed a calcium-phosphorus rich layer (reaction zone) at the interface of ceramics and bone tissue. The thickness of the reaction zone was 10 to -15 microns and did not increase as time passed. (ABSTRACT TRUNCATED AT 250 WORDS)

L7 ANSWER 55 OF 58 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:269602 BIOSIS
DOCUMENT NUMBER: PREV200400266460
TITLE: On the microstructure of biocomposites sintered from Ti, HA and bioactive glass.
AUTHOR(S): Ning, C. Q. [Reprint Author]; Zhou, Y.
CORPORATE SOURCE: Ctr Biomed EngrnWenner Gren Res Lab, Univ Kentucky, Lexington, KY, 40506, USA
cqning@yahoo.com
SOURCE: Biomaterials, (August 2004) Vol. 25, No. 17, pp. 3379-3387. print.
CODEN: BIMADU. ISSN: 0142-9612.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 May 2004
Last Updated on STN: 26 May 2004

AB Sintering reactions and fine structures of the biocomposites prepared from powder mixtures of titanium (alpha-Ti), hydroxyapatite (HA) and bioactive glass (BG) (SiO₂-CaO-P₂O₅-B₂O₃-MgO-TiO₂-CaF₂) were investigated by X-ray diffraction and transmission electron microscopy. The results showed that complex reactions among the starting materials mainly depended on the initial Ti/HA ratios as well as the sintering temperatures. And the reaction could be expressed by the following illustrative equation: Ti + Ca₁₀(PO₄)₆(OH)₂ → CaTiO₃ + CaO + Ti_xP_y + (Ti₂O) + (Ca₄P₂O₉) + H₂O. Copyright 2003 Elsevier Ltd. All rights reserved.

L7 ANSWER 56 OF 58 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:121815 SCISEARCH
THE GENUINE ARTICLE: 00710
TITLE: Formation of hydroxyapatite onto glasses of the CaO-MgO-SiO₂ system with B₂O₃, Na₂O, CaF₂ and P₂O₅ additives
AUTHOR: Agathopoulos S; Tulyaganov D U; Ventura J M G; Kannan S; Karakassides M A; Ferreira J M F (Reprint)
CORPORATE SOURCE: Univ Aveiro, CICECO, Dept Ceram & Glass Engrn, P-3810193 Aveiro, Portugal (Reprint); Sci Res Inst Space Engrn, Tashkent 700128, Uzbekistan; Univ Ioannina, Dept Mat Sci & Engrn, GR-45110 Ioannina, Greece
jmf@cv.ua.pt
COUNTRY OF AUTHOR: Portugal; Uzbekistan; Greece
SOURCE: BIOMATERIALS, (MAR 2006) Vol. 27, No. 9, pp. 1832-1840. ISSN: 0142-9612.
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 56
ENTRY DATE: Entered STN: 9 Feb 2006
Last Updated on STN: 9 Feb 2006

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB New bioactive glasses with compositions based on the CaO-MgO-SiO₂ system and additives of B₂O₃, P₂O₅, Na₂O, and CaF₂ were prepared. The in vitro

mineralization behaviour was tested by immersion of powders or bulk glasses in simulated body fluid (SBF). Monitoring of ionic concentrations in SBF and scanning electron microscopy (SEM) observations at the surface of the glasses were conducted over immersion time. Raman and infrared (IR) spectroscopy shed light on the structural evolution occurring at the surface of the glasses that leads to formation of hydroxyapatite. (C) 2005 Elsevier Ltd. All rights reserved.

L7 ANSWER 57 OF 58 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:330236 SCISEARCH
THE GENUINE ARTICLE: 808GS
TITLE: On the microstructure of biocomposites sintered from Ti, HA and bioactive glass
AUTHOR: Ning C Q (Reprint); Zhou Y
CORPORATE SOURCE: Univ Kentucky, Ctr Biomed Engr, Wenner Gren Res Lab, Lexington, KY 40506 USA (Reprint); Harbin Inst Technol, Sch Mat Sci & Engr, Harbin 150001, Peoples R China
COUNTRY OF AUTHOR: USA; Peoples R China
SOURCE: BIOMATERIALS, (AUG 2004) Vol. 25, No. 17, pp. 3379-3387. ISSN: 0142-9612.
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 26
ENTRY DATE: Entered STN: 23 Apr 2004
Last Updated on STN: 23 Apr 2004

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Sintering reactions and fine structures of the biocomposites prepared from powder mixtures of titanium (α -Ti), hydroxyapatite (HA) and bioactive glass (BG) (SiO_2 -CaO-P₂O₅-B₂O₃-MgO-TiO₂-CaF₂) were investigated by X-ray diffraction and transmission electron microscopy. The results showed that complex reactions among the starting materials mainly depended on the initial Ti/HA ratios as well as the sintering temperatures. And the reaction could be expressed by the following illustrative equation: $\text{Ti} + \text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2 \rightarrow \text{CaTiO}_3 + \text{CaO} + \text{Ti}_x\text{Py} + (\text{Ti}_2\text{O}) + (\text{Ca}_4\text{P}_2\text{O}_9) + \text{H}_2\text{O}$. (C) 2003 Elsevier Ltd. All rights reserved.

L7 ANSWER 58 OF 58 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:325243 SCISEARCH
THE GENUINE ARTICLE: HU926
TITLE: INFLUENCE OF SUBSTITUTING B₂O₃ FOR CaF₂ ON THE BONDING BEHAVIOR TO BONE OF GLASS-CERAMICS CONTAINING APATITE AND WOLLASTONITE
AUTHOR: KITSUGI T (Reprint); YAMAMURO T; NAKAMURA T; YOSHII S; KOKUBO T; TAKAGI M; SHIBUYA T
CORPORATE SOURCE: KYOTO UNIV, FAC MED, DEPT ORTHOPAED SURG, KYOTO 606, JAPAN (Reprint); KYOTO UNIV, INST CHEM RES, MAT SCI LAB, KYOTO 606, JAPAN
COUNTRY OF AUTHOR: JAPAN
SOURCE: BIOMATERIALS, (1992) Vol. 13, No. 6, pp. 393-399. ISSN: 0142-9612.
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD, OXON, ENGLAND OX5 1GB.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 26
ENTRY DATE: Entered STN: 1994
Last Updated on STN: 1994

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB

Glass-ceramics containing crystalline oxy-fluorapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{O},\text{F}_2)$) and wollastonite (CaSiO_3) (designated AWGC) are reported to have a fairly high mechanical strength as well as the capability of forming a chemical bond with bone tissue. The chemical composition is MgO 4.6, CaO 44.9, SiO_2 34.2, P_2O_5 16.3, and CaF_2 0.5 in weight ratio. In this study the influence of substituting B_2O_3 for CaF_2 on the bonding behaviour of glass-ceramics containing apatite and wollastonite to bone tissue was investigated. Two kinds of glass-ceramics containing apatite and wollastonite were prepared. CaF_2 0.5 was replaced with B_2O_3 at 0.5 and 2.0 in weight ratio (designated AWGC-0.5B and AWGC-2.0B). Rectangular ceramic plates (15 x 10 x 2 mm, abraded with Number 2000 alumina powder) were implanted into a rabbit tibia. The failure load, when an implant detached from the bone, or the bone itself broke, was measured. The failure load of AWGC-0.5B was 8.00 +/- 1.82 kg at 10 weeks after implantation and 8.16 +/- 1.36 kg at 25 weeks after implantation. The failure load of AWGC-2B was 8.08 +/- 1.70 kg at 10 weeks after implantation and 9.92 +/- 2.46 kg at 25 weeks after implantation. None of the loads for the two kinds of glass-ceramics decreased as time passed. Giemsa surface staining and contact microradiography revealed direct bonding between glass-ceramics and bone. SEM-EPMA showed a calcium-phosphorus rich layer (reaction zone) at the interface of ceramics and bone tissue. The thickness of the reaction zone was 10 to 15- μm and did not increase as time passed. There was no difference of the reaction zone thickness between AWGC-0.5B and AWGC-2.0B. The substitution B_2O_3 for CaF_2 did not influence the bonding ability of the glass-ceramics. Boron neither promotes the dissolution of the glass-ceramics nor influences the bone formation at the interface of ceramics and bone.

=>

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=> s ((bioactive glass) or ceramic or bioglass or (bioactive ceramic))
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SEARCH ENDED BY USER

=> s ((bioactive glass) or ceramic or bioglass or (bioactive ceramic))
 L1 781795 ((BIOACTIVE GLASS) OR CERAMIC OR BIOGLASS OR (BIOACTIVE CERAMIC))

=> s l1 and ((calcium oxide) or CaO)
 L2 31755 L1 AND ((CALCIUM OXIDE) OR CAO)

=> s l2 and (silica or SiO2)
 L3 17778 L2 AND (SILICA OR SIO2)

=> s l3 and ((boron oxide) or B2O3)
 L4 3885 L3 AND ((BORON OXIDE) OR B2O3)

=> s l4 and ((magnesium oxide) or MgO)
 L5 2589 L4 AND ((MAGNESIUM OXIDE) OR MGO)

=> s l5 and ((calcium fluoride) or CaF2))
 UNMATCHED RIGHT PARENTHESIS 'CAF2))'
 The number of right parentheses in a query must be equal to the
 number of left parentheses.

=> s l5 and ((calcium fluoride) or CaF2)
 L6 111 L5 AND ((CALCIUM FLORIDE) OR CAF2)

=> s l6 and ((phosphorus pentoxide) or P2O5)
 L7 58 L6 AND ((PHOSPHORUS PENTOXIDE) OR P2O5)

=> s l7 and biodegrad?

L8

3 L7 AND BIODEGRAD?

=> d 18 1-3 ibib abs

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:182250 CAPLUS

DOCUMENT NUMBER: 140:205207

TITLE: Biodegradable and bioactive
glass-ceramics, and method for fabricating the
sameINVENTOR(S): Yu, Hyun Seung; Hong, Kug Sun; Kim, Hwan; Lee, Dong
Ho; Lee, Choon Ki; Chang, Bong Soon; Kim, Deug Joong;
Seo, Jun Hyuk; Lee, Jae Hyup; Park, Ki Soo

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004043053	A1	20040304	US 2003-648217	20030827
KR 2004021111	A	20040310	KR 2002-52566	20020902
PRIORITY APPLN. INFO.:			KR 2002-52566	A 20020902

AB Disclosed herein is a biodegradable and bioactive glass-ceramic fabricated by mixing a slowly biodegradable glass-ceramic and a highly biodegradable glass-ceramic in a predetd. mixing ratio wherein the bioactivity is maintained to be constant, and the biodegrdn. rate is controlled by the mixing ratio. The biodegradable and bioactive glass-ceramic is fabricated from a composition consisting of calcium oxide (CaO), silica (SiO₂), boron oxide (B₂O₃), magnesium oxide (MgO), calcium fluoride (CaF₂) and phosphorus pentoxide (P₂O₅). Preparation of a biodegradable and bioactive glass-ceramic according to above method is disclosed. Electron microscopic images shown hydroxycarbonated apatite layers were formed on the entire surfaces of the specimens taken out 1 day after soaking in simulated body fluid thus suggesting that the specimens were highly bioactive. As the content of B₂O₃ in the specimens increased, the weight of the specimens was greatly reduced. This demonstrated that the biodegrdn. of the specimens had actively proceeded.

L8 ANSWER 2 OF 3 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

ACCESSION NUMBER: 2003:133768 EPFULL

ENTRY DATE PUBLICATION: 20051228

UPDATE DATE PUBLICAT.: 20061206

DATA UPDATE DATE: 20061206

DATA UPDATE WEEK: 200649

TITLE (ENGLISH): BIOCOMPATIBLE MATERIAL

TITLE (FRENCH): MATERIAU BIOCOMPATIBLE

TITLE (GERMAN): BIODKOMPATIBLES MATERIAL

INVENTOR(S): Martinez Fernandez, Julian, Universidad de
Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES;
Ramirez de Arellano Lopez, Antonio, Universidad de
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Varela Feria, Francisco Manuel, Universidad de
Sevilla, Pabellon de Brasil s/n, 41012 Sevilla, ES;
Gonzalez Fernandez, Pio Manuel, Uni. de Vigo, ETS de

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 Serra Rodriguez, Julia A., Uni. de Vigo, ETS de
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 Liste Carmueja, Sara, Uni. de Vigo, ETS de Ingenieros
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 (Pontevedra), ES; Leon Fong, Betty, Uni. de Vigo, ETS de
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 Perez-Martinez Y Perez-Amor, Mariano, Uni. de Vigo, ETS
 de Ingenieros Industriales, 36200 Vigo (Pontevedra), ES
 PATENT APPLICANT(S): Universidad de Sevilla,, OTRI - Universidad de Sevilla,
 c/ Valparaiso, 5 1 planta, 41013 Sevilla, ES;
 Universidad de Vigo, Oficina I+D - Universidad de
 Vigo, Edificio CACTI, Campus Universitario de Vigo,
 36200 Vigo (Pontevedra), ES
 PATENT APPL. NUMBER: 2431773; 1896640
 AGENT: Temino Cenicerros, Ignacio, Abril Abogados, Amador de
 los Rios, 1 1, 28010 Madrid, ES
 AGENT NUMBER: 159233
 DOCUMENT TYPE: Patent
 LANGUAGE OF FILING: Spanish
 LANGUAGE OF PUBL.: English
 LANGUAGE OF PROCEDURE: English
 LANGUAGE OF TITLE: German; English; French
 PATENT INFO TYPE: EPO Application published with search report
 PATENT INFORMATION:
 PATENT INFORMATION:

	NUMBER	KIND	DATE
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	EP 1609441	A1	20051228
	WO 2004056292		20040708
DESIGNATED STATES:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI		
	LU MC NL PT RO SE SI SK TR		
APPLICATION INFO.:	EP 2003-785961	A	20031216
	WO 2003-ES638	A	20031216
PRIORITY INFO.:	ES 2002-3052	A	20021220

ABEN

The invention relates to a novel biocompatible material which is intended to be used in the production of implants, prostheses or biomedical devices, comprising biomorphic SiC ceramics as a support material with a coating of bioactive glass that is deposited by means of pulsed laser ablation.

L8 ANSWER 3 OF 3 EPFULL COPYRIGHT 2007 EPO/FIZ KA on STN

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 ENTRY DATE PUBLICATION: 20050824
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 TITLE (ENGLISH): SILVER-CONTAINING, SOL-GEL DERIVED BIOGLASS
 COMPOSITIONS
 TITLE (FRENCH): COMPOSITIONS DE VERRE BIOACTIF CONTENANT DE L'ARGENT ET
 OBTENU PAR UNE TECHNIQUE SOL-GEL
 TITLE (GERMAN): SILBERHALTIGE BIOGLAS-ZUSAMMENSETZUNGEN, DIE VON
 SOL-GEL ZUSTAENDEN ABGELEITET WERDEN
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 AGENT: Clyde-Watson, Zoe, D Young & Co 120 Holborn, London
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	WO 2000076486		20001221
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	SE		
APPLICATION INFO.:	EP 2000-939832	A	20000614
	WO 2000-US16207	A	20000614
PRIORITY INFO.:	US 1999-139014P	P	19990614
CITED NON PATENT LIT.:	PATENT ABSTRACTS OF JAPAN vol. 017, no. 659 (C-1137), 7 December 1993 (1993-12-07) & JP 05 213621 A (TOKUYAMA SODA CO LTD), 24 August 1993 (1993-08-24); PATENT ABSTRACTS OF JAPAN vol. 1997, no. 08, 29 August 1997 (1997-08-29) & JP 09 110463 A (ION KOGAKU SHINKO ZAIDAN), 28 April 1997 (1997-04-28); JORUNAL OF BIOMEDICAL RESEARCH, vol. 51, no. 3, 5 September 2000 (2000-09-05), pages 484-490,		
CITED PATENT LIT.:	WO 8501210	A	
	WO 9404657	A	
	WO 9907777	A	
	US 5071674	A	
	US 5126141	A	
	US 5298260	A	
	US 5681872	A	
	US 5834008	A	
	US 5874101	A	

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